

**183**

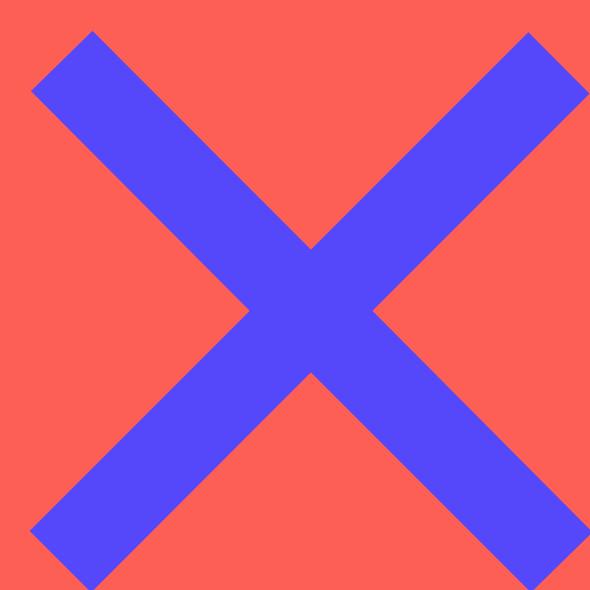
Pages of  
prompt  
tips

Full 100+ pages  
ideation case study  
transcript

125 Prompts for  
every step of the  
ideation process

Maximize your  
ideation results  
with ChatGPT

# ChatGPT



# Ideation

For innovators, product managers  
and startups

FREE PREVIEW

“ This book is a game changer for venture builders. Ideating and validating with the power of ChatGPT is 100x faster. A glimpse of our AI powered future.

**Tim van den Bosch**  
Founder, NewDesigners

You're reading a **free preview version** of the full ebook. To give you a better idea of what to expect, I put together a summary of the topics that we'll go through in the full version. Plus, you will already get some examples of tools and techniques that will help you get started with using AI in your innovation process!

“ The customer journey and storyboarding prompts are amazing. A huge timesaver!

**Don Fontijn**  
Principal Business Designer, Board Of Innovation

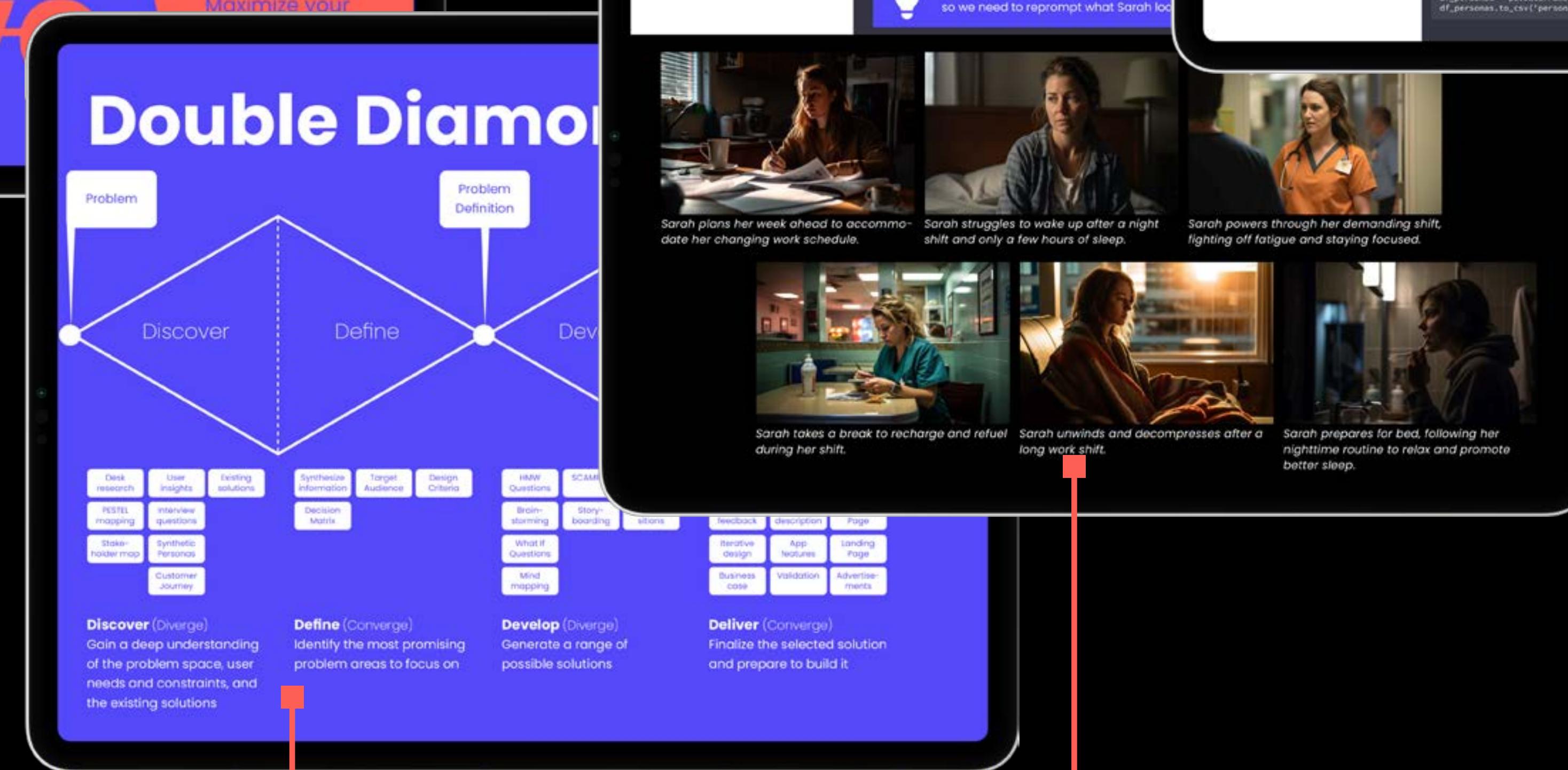
“ My team uses the book and ChatGPT in workshops with clients and we are every time surprised with the speed with which we can generate new ideas. Definitely an eye opener!"

**Patrick van der Pijl**  
CEO, Business Models Inc.

# Welcome to the **free** **preview!**

FREE PREVIEW

# what's in the full ebook?



**183 full-color pages** of examples, case studies, **125 prompts**, and **32 innovation tools** tips,

Structured around well-known **innovation methodology** to make it easy to adapt to your own specific situation.

Includes **ChatGPT**, **Miro AI** and **MidJourney** examples and prompts – All of the prompts and responses included.

Featuring a **Deep Dive** chapter with advanced topics, including using **python code** to create and analyze synthetic personas.

Find prompts and tips to use ChatGPT to work with well known canvases and tools such as the **Business Model Canvas**.

	Male	Female
Nurse	0.4	0.7
Factory Worker	0.6	0.3
Age: 20-30	0.3	0.4
Age: 30-40	0.4	0.2
Age: 40-50	0.3	0.4

Here, I visualized ChatGPT's output in a Business Model Canvas format. Although it might not be the best Business Model right off the bat, this does demonstrate the potential for ChatGPT to generate new business models based on a chat context, as demonstrated here by referencing the ChronoGuruX idea developed in the case study in chapter 4.

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The preview includes chapters 1, 2, 3 and the first part of chapter 4. That's about 42 pages, so **less than a quarter** of the full ebook!

# Introduction

You've probably heard about ChatGPT, GPT-4 and Generative AI. The last months, it's been hard to get away from. And perhaps you've been thinking about how to use it in your work. Maybe you've even already tried it!

Whether you tried it or not, this ebook will definitely help you put Generative AI to practical use in your innovation projects right away. And, you'll see that doing so might net you some great new ideas, as well as allow you to cover much more ground fast when innovating.

At the very least, reading this ebook will give you a ton of experience with using Generative AI that you'll definitely put to good use in the future.

Now, I am assuming you picked up this ebook to get

stuck in with ideation, and not to read an in-depth discussion of what Generative AI and ChatGPT are. This book aims to be practical and hands-on!

The ebook starts by setting the scene and introducing a few things in chapter 1, but starting from chapter 2 you'll be hands on with ChatGPT and innovation.

Chapter 3 gives a framework we'll use for innovation in the case study that you can find in chapter 4.

In the case study, you'll find many detailed prompts. Chapters 5, 6, and 7 dive deeper into specific techniques.

So, all that being said, let's kick off!

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The preview includes chapters 1, 2, 3 and the first part of chapter 4. That's about 42 pages, so **less than a quarter** of the full ebook!

# Man ❤ Machine

Many people fear the rise of the robots and the rise of the machines. Talk about AI and people think of the Terminator, Skynet and the Matrix, or their jobs being taken over by AI and robots.

The emergence of ChatGPT and Generative AI have made this fear even more imminent – as developments speed up and start impacting the world around you, it's hard not to wonder if the Singularity is coming any moment. However, I think we should not fear AI. Rather, we should embrace it and work together with it. It's about love, not fear.

We learned in the past that the introduction of new technologies creates new opportunities. New business models emerge on the crossroads of changes in technology and customer behavior.

Skype did not fade out the Telecom sector, but paved the way for remote working. Spotify disrupted the music industry. It didn't kill the

industry but made the ecosystem more relevant. Whatsapp gave us new communication options. Tesla showed electric cars were a viable option, and revolutionized batteries in the process. Google created an entire sector by launching a search engine. And there are many more examples.

Likewise, Generative AI and ChatGPT will not just disrupt the market, but bring a world of new opportunities.

Working together with AI, we can create new ideas, and new products and services that we couldn't come up with on our own. Human-AI collaboration is the future, and it's time we embrace it.

As we move forward, we must recognize the unique skills that AI can bring to

the table. And we must do so without losing sight of the irreplaceable value of human creativity and ingenuity.

Only by leveraging the strengths of both can we create solutions that are truly groundbreaking and transformative. Man and machine are not in competition—they form a new partnership. A partnership that holds the potential for endless possibilities.

# Why do we want a computer to help us with ideation?

The whole process of Innovation is about bringing new and improved ideas into the world. We come up with those ideas during ideation. This is where the creative juices really get flowing. Looking at it that way, ideation is maybe the most important part of the innovation process!

Unfortunately, coming up with really 'good' ideas out of the blue isn't easy! It's hard work!

What makes innovation especially hard nowadays is the quality of ideas you need to succeed (simple brainstorming is not enough) and the speed required to design, prototype and validate new ideas.

## Generative AI

Since this book is about using Generative AI for ideation, it might come as no surprise that I think

we can solve some of our ideation problems with this shiny new technology, and that need to start using it for ideation right away.

## The need for speed

In recent years, an already 'VUCA' (Volatile, Uncertain, Complex and Ambiguous) world has become even more so—just think of the recent pandemic, changes in the political landscape and the meteoric rise of AI.

[Innovation is not a side project, it's your day job.](#)

To be competitive, you better be innovating at top speed – and Generative AI can add a speed boost.

## Force multiplier

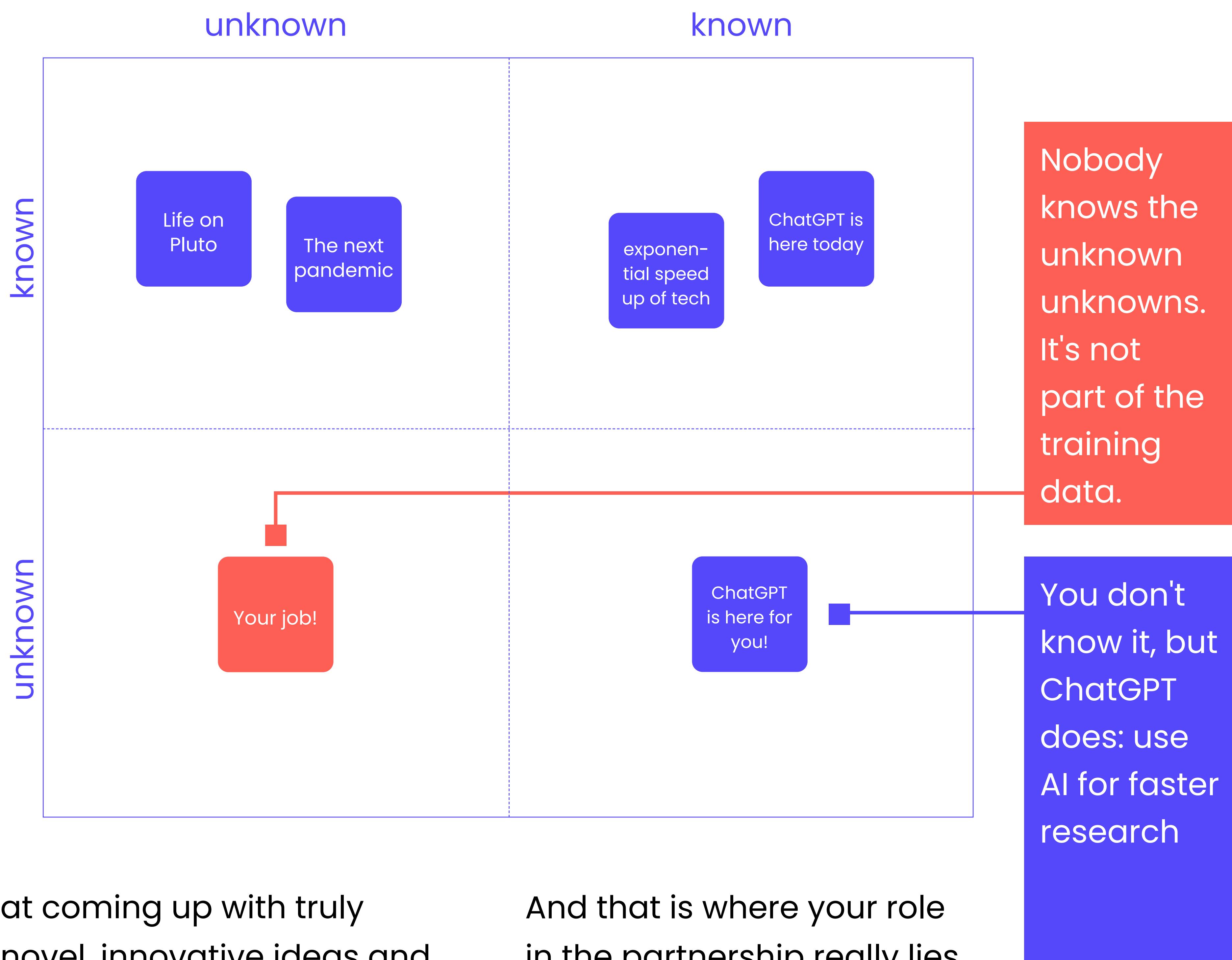
Generative AI acts as a force multiplier for experienced innovation teams, allowing them wider exploration and faster iteration, and as a leg-up for less experienced teams, helping them get better results from their innovation efforts, and learn faster.

# ...can AI be creative?

But first, let's ask ourselves: Can an AI really help us ideate? Isn't ideation a creative process? Can computers and algorithms really step into the shoes of human creatives? Well, yes and no.

On one hand, AI algorithms, specifically the ones called 'LLM's' or Large Language Models, are able to quickly generate very sophisticated text based on 'prompts' that you put in. These prompts can trigger the AI to come up with anything from ideas, blog post, recipes or haiku's. The limit really lies in your imagination.

And, surprisingly, the output these models generate is often immediately useful in the innovation process. In this way, you're co-creating with the AI as your creative partner. This frees you up to focus on what really matters: asking the right questions and taking creative decisions. There is, however, also a limit to what these models can do. Because of the way they are trained, they are really not great



at coming up with truly novel, innovative ideas and concepts out of the box.

While ChatGPT can help you out with '**unknown knowns**', the AI has an especially difficult time with the '**unknown unknowns**' – which is where true innovation value can be found.

And that is where your role in the partnership really lies.

You'll be the one giving direction and meaning to what you create together with your AI buddy. The AI can't run the show on its own.

# Generative AI

We've already mentioned the term Generative AI a few times, and now it's time to define what it really means.

Generative AI, sometimes also called Creative AI, is a type of artificial intelligence that can create new content based on existing data. It uses algorithms and machine learning to analyze patterns and generate new content, such as text, images, and music.

One form of generative AI is the so-called 'large language model' or 'LLM'. LLMs, such as ChatGPT and GPT-4, can understand and respond to human language and generate new text based on their training data.

Another type of generative AI are image generators such as Midjourney or Stable Diffusion. These algorithms can create very sophisticated new images based on textual input. Besides these two

types, are many other types of generative AI on the market or coming soon, such as music generation algorithms, text-to-video, text-to-product, and many more.

Over the end of 2022 and the beginning of 2023, Generative AI has become increasingly popular due to its ability to create content that is indistinguishable from human-generated content.

## ChatGPT and Prompts

One of the most prominent examples of a large language model is ChatGPT. It uses natural language to create conversations with users.

Through a simple chat interface, users ask questions or give commands, and the AI will

respond with generated content.

We call the input that users provide to the AI 'prompts', and, to get the most out of generative AI, it's important to write 'good' prompts. This helps ensure that the results generated by the AI are useful and applicable to the task at hand. That's where the magic is. A large part of this book covers how to write great prompts specifically for ideation!

# Find your strength

Now that we have set the scene for our budding creative partnership with Generative AI, it would be nice to know where our newly minted partner's strengths really lie. Where can Generative AI really make a difference? Where can it help? And where might it hurt?

Off the bat, generative AI can help automate repetitive tasks such as data analysis, content generation, and writing, thus freeing up designers to focus on more creative and strategic aspects of the design process.

Additionally, through its ability to condense and simplify complex information, generative AI can help designers to quickly identify key insights. This means generative AI has the potential to significantly streamline the design process. Finally, and that's probably why you picked up this ebook, Generative AI can help you to come up with ideas quickly.

## Overreliance

Of course there's also a downside to using generative AI. Many models, especially those that are not linked to the internet including ChatGPT, will come up with false information and untested ideas.

Based on your prompt, ChatGPT may 'hallucinate' information that is false and won't benefit your innovation process. And the danger is, that what it generates looks absolutely real, plausible and immediately useful – which

*Some of the many tasks Generative AI can help with.*

Automate repetitive tasks

Accelerate writing

Brainstorm ideas

Condense information

Simplify the complex

Expand perspectives

Improve what's available



In chapter 3, we'll dive more into how Generative AI really can help us overcome our own weaknesses in ideation and how we can play to its strengths.

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# Generative AI:

## The Friend You Can Rely On

## Until It Takes Over the World

it may or may not actually be. You'll only know for sure when validating with real people or other sources.

Any innovator knows that a good process is important to get you to the finish line, and that that process includes validating your ideas. With ideas generated with AI, just remember that validation suddenly becomes 10x as important, as does critical thinking.

Overreliance on Generative AI will mean you not only run the risk of relying on false information, but you'll quickly atrophy the thinking muscles you need desperately for truly good innovation.

That being said, taking on board a Generative AI as part of your creative team will help you come up with more ideas, allow you to explore more directions, and lighten your workload, so

you can spend more time and brainpower on your creative direction. Done right, all of this leads to better quality outcomes in less time.



Whenever you find yourself mindlessly copy-pasting prompts and results from ChatGPT, stop to think.

Are you really adding your own human perspective, insights and ideas?

Or are you using ChatGPT as your crutch?

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# What you'll get out of this book

- A clear understanding of ideation** and how it contributes to innovation
- An **introduction to generative AI** and how it can help with ideation
- A step-by-step guide** to setting up and using ChatGPT and GPT-3 for ideation
- In-depth knowledge** on how to use ChatGPT and GPT-3 for ideation and advanced ideation techniques
- Examples of successful ideation** with ChatGPT and GPT-4
- Strategies for validating ideas** generated with ChatGPT and GPT-3
- Additional tools and frameworks** to help you develop and pitch your ideas

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# There's no silver bullet!

Just remember, even with these shiny new tools, there is no 'silver bullet', no 'magic button' that you can press to get good ideas and innovations out automatically.

Generative AI comes close, especially at first glance, but to really get great results you'll have to work for it.

This ebook aims to show you how to do just that.



# 2

# Quick Start Guide to ChatGPT

Enough talk, it's time to get our hands dirty! In this section, I'll explain how you can start using ChatGPT right away.

Let's start by getting access to ChatGPT, for those of you that haven't figured it out already.

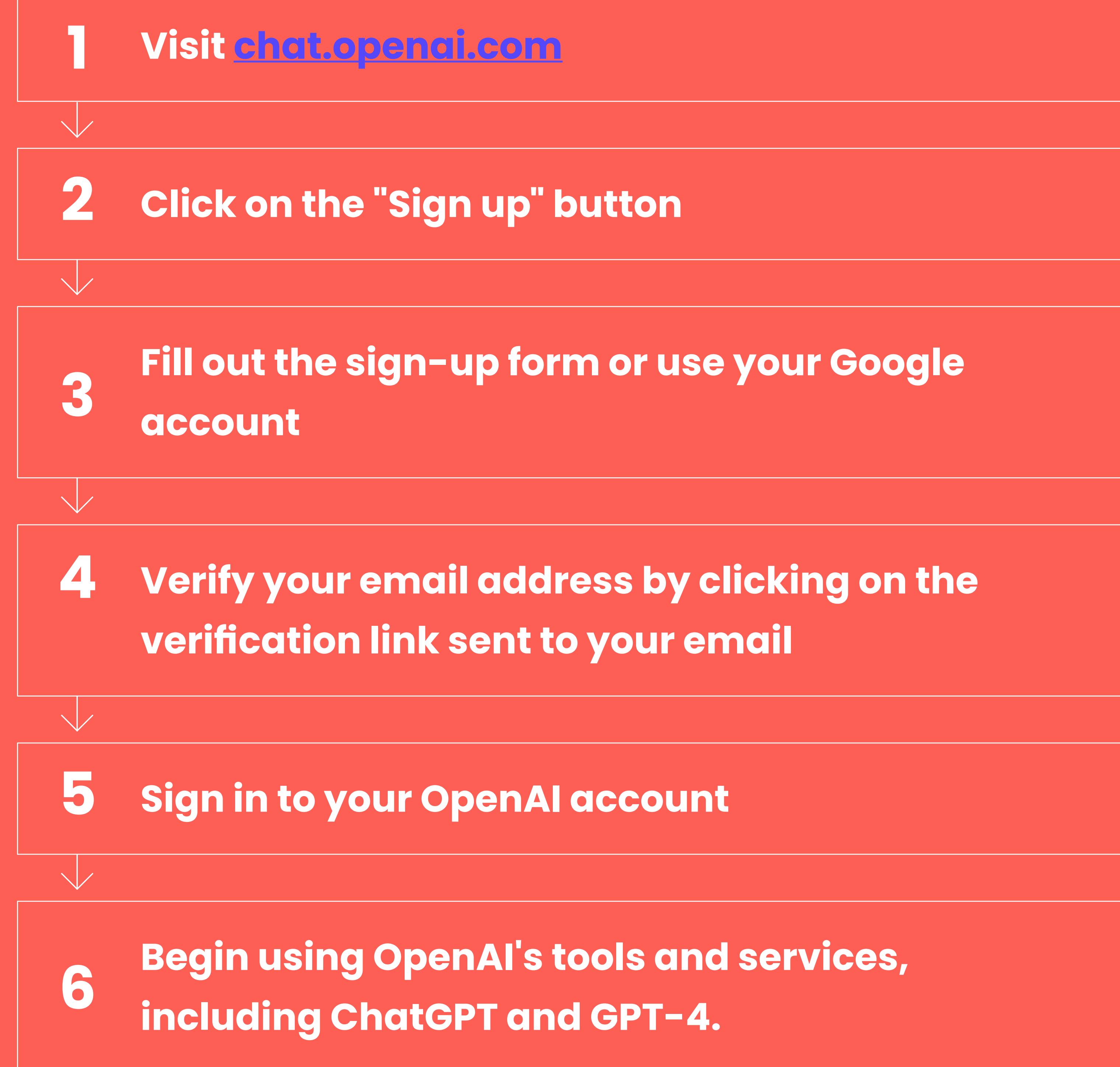
To set up ChatGPT, you'll need to start by creating an account with OpenAI. Head over to [this link](#) and click on the 'sign up' button.

You'll be prompted to create an account with your name, email address, and password, or you can sign up with your Google account. After signing up, check your email and click on the verification

link sent to you by OpenAI to complete the sign-up process.

Once you've verified your email address, sign in to start using the available tools and services, including ChatGPT and GPT-4

# Setting up ChatGPT



# Your first prompt!

With ChatGPT, generating ideas and having conversations has never been easier. Follow these steps to run your first prompt.

**1.** Navigate to [chat.openai.com](https://chat.openai.com)

**2.** Choose an open-ended question or a prompt that you want to generate ideas for – or pick the one from the example to the right.

**3.** Input your prompt into the “Prompt” box at the bottom of the screen.

**4.** Click “Enter” to generate your response. It’s just like chatting!

**P** Write a one-paragraph story about a cat who saves the day.

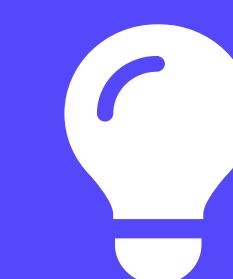
**S** On a sunny day, a cat named Simba was relaxing on his owner's porch when he noticed a small child in distress. The child had wandered too far into the nearby woods and was lost. Simba quickly jumped down from the porch and followed the child's cries for help. He led the child back to safety and to the relieved arms of their mother. Simba's heroism didn't go unnoticed, and the townspeople praised him for his quick thinking and bravery. From that day on, Simba was known as the protector of the town and was greeted with love and admiration wherever he went.



The interesting thing about ChatGPT, and the thing that sets it apart from many earlier models, is that it has a conversation history. This means that you can refer back to earlier results and ask follow-up questions or refine the results. You also have access to your history on the left of the screen, allowing you to easily track your conversation and learn from earlier experiments.

**P** Do it again, but it's not about a cat, but about a dog.

**S** One sunny day, a dog named Max was taking his usual morning walk when he noticed something strange on the ground. It was a little girl's lost teddy bear! Max knew how much the girl must love her toy, so he took it upon himself to find its owner. He sniffed around the neighborhood until he finally found the girl's house. The girl was overjoyed when she saw Max with her beloved teddy bear in his mouth. She hugged him tight, and her parents were amazed at the dog's intelligence and kind heart. From that day on, Max was known as the neighborhood hero, always looking out for others and going above and beyond to make a difference.



As you can see, ChatGPT remembers the prompt you gave before and is able to repeat it. It creates a new one-paragraph story, now about a dog rather than a cat. What is also obvious, is that it did not simply replace the cat with a dog, but it came up with a different story, along the same theme: the pet helps or saves a child. This ability to create many different versions of a result is what we really like when ideating.

2.01

12

> Get these prompts

In the full version, this button gives access to all 125 prompts in the book.

2.02

We've numbered the prompts in this ebook for easy reference!

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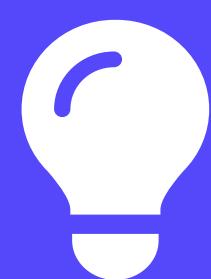
Go forth and  
experiment  
with ChatGPT!

# FREE PREVIEW

# Playing around with ChatGPT

Here are some example prompts from different ideation scenarios to play around with.

Note that these examples are just here to give you a first impression. Just using the prompts below will give you some plausible and interesting results, but to really get value you'll need to do a bit more work.



Replace '{problem area}' with a problem of your choice.

The next section in the e-book shows a full step by step ideation conversation.

## Discover:

- I am looking for unmet needs or problems around {problem area} that a new product could address 2.03
- What are some emerging trends or technologies around {problem area} that could be leveraged for new product ideas? 2.04
- What are the customer pain points that a product around {problem area} should address? 2.05

> Get these prompts

## Define:

- Which customer pain points around {problem area} are most prevalent? 2.06
- Which customer pain points around {problem area} have the most impact? 2.07

## Develop:

- What features or functionalities should we include in our product for <problem area>? 2.08
- What would be a unique value proposition for our product around <problem area>? 2.09

## Deliver:

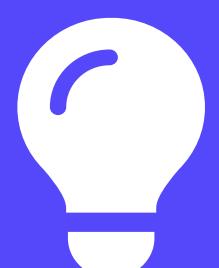
- What would a business model canvas for a product around {problem area} look like? 2.10
- What would an outline of a pitch deck for our product around {problem area} look like? 2.11
- What are the most effective ways to launch and promote our product around {problem area}? 2.12

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# Tips for better prompts

As we've seen, the results definitely look plausible and in the right direction.

Looking at them as an innovator, however, I feel they are way too generic and bland. We need to spice it up, and the secret sauce is all in how you structure your prompts.



Prompt ChatGPT to come up with variations on your prompt!

- 1 Have a clear goal:** Start with a clear and specific goal in mind for your prompt, such as generating ideas for a new product, finding solutions to a particular problem, or brainstorming marketing ideas.
- 2 Keep it simple:** Use simple and concise language to frame the prompt. Avoid technical jargon or complex sentence structures.
- 3 Focus:** Focus on one topic or idea per prompt.
- 4 Context:** Consider the context of your prompt. The conversation preceding your prompt will influence the result and how ChatGPT responds.
- 5 Specify a target audience:** Specify the audience or users you want to target with the prompt.
- 6 Specify the result:** Specify what you expect ChatGPT to give as a result
- 7 Specify the output format:** Tell ChatGPT how it should format the result. It can generate plain text, but also tables, lists, json data and code, among others.
- 8 Experiment with prompts:** Experiment with different prompts and variations to see what works best for your specific needs.
- 9 Experiment with formats:** Experiment with different prompt formats, such as open-ended questions, fill-in-the-blank statements, or specific keywords.

## Bad

P Come up with a new product

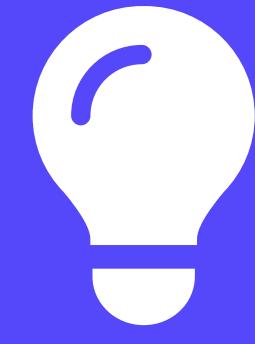
2.13

## Better

P Give me three different ideas for a new digital product around fashion.

2.14

> Get these prompts



The first prompt is simply not specific enough. ChatGPT could answer anything, and it will probably tell you that it is not capable of giving a good answer. The second prompt is much more specific.

## Bad

P Create a product idea, it is about fashion or mobility or something, and it needs to be super effective. Or no, wait, it needs to be super stylish.

2.15

## Better

P I'm looking for three product ideas that are stylish and fashionable and really help people in public transport.

2.16



The first one is all over the place and not very clear.  
The second one is much more decisive.

## Bad

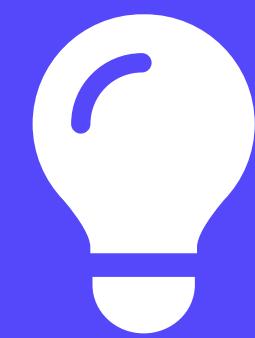
P Come up with an idea for a product around education.

2.17

## Better

P I'm looking for a new product idea aimed at 1-3 year old kids, that supports them in their education. It should be fun, colorful and friendly.

2.18

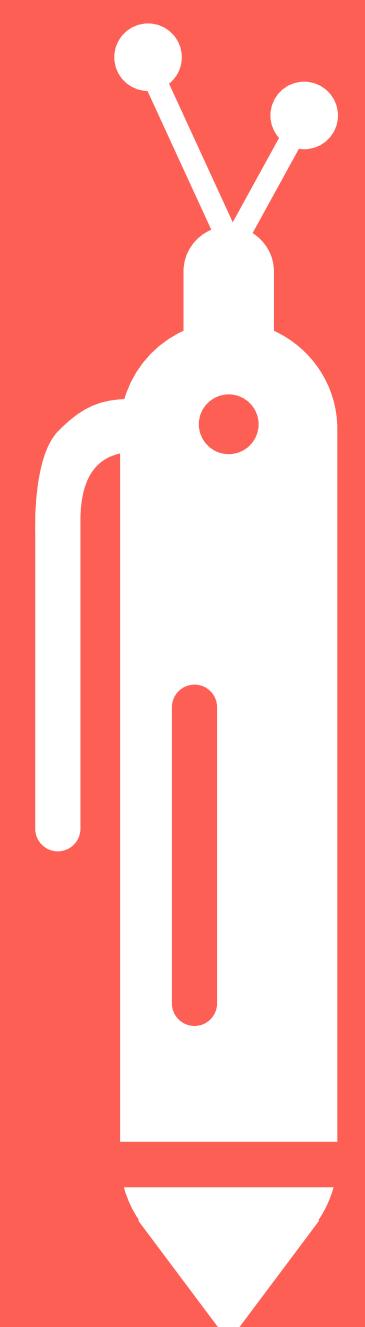
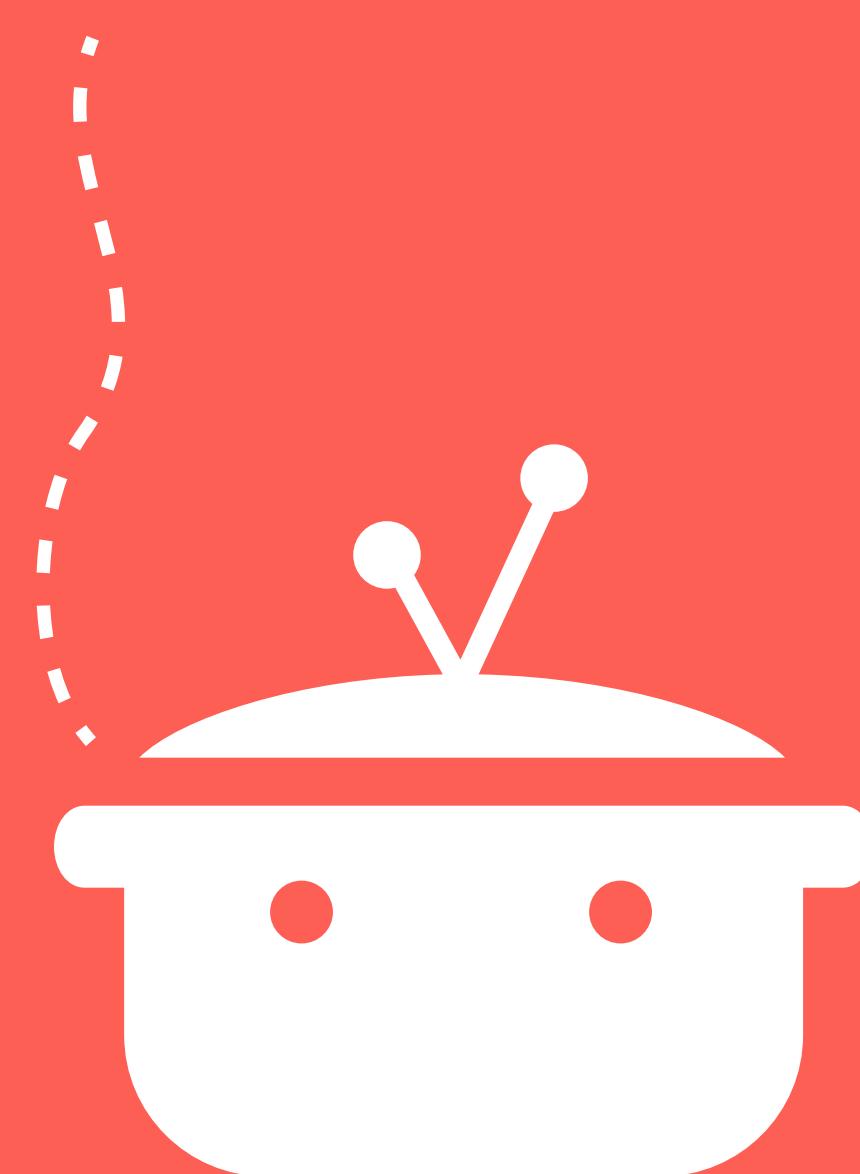


Instead of being vague, try to specify the details you do know.

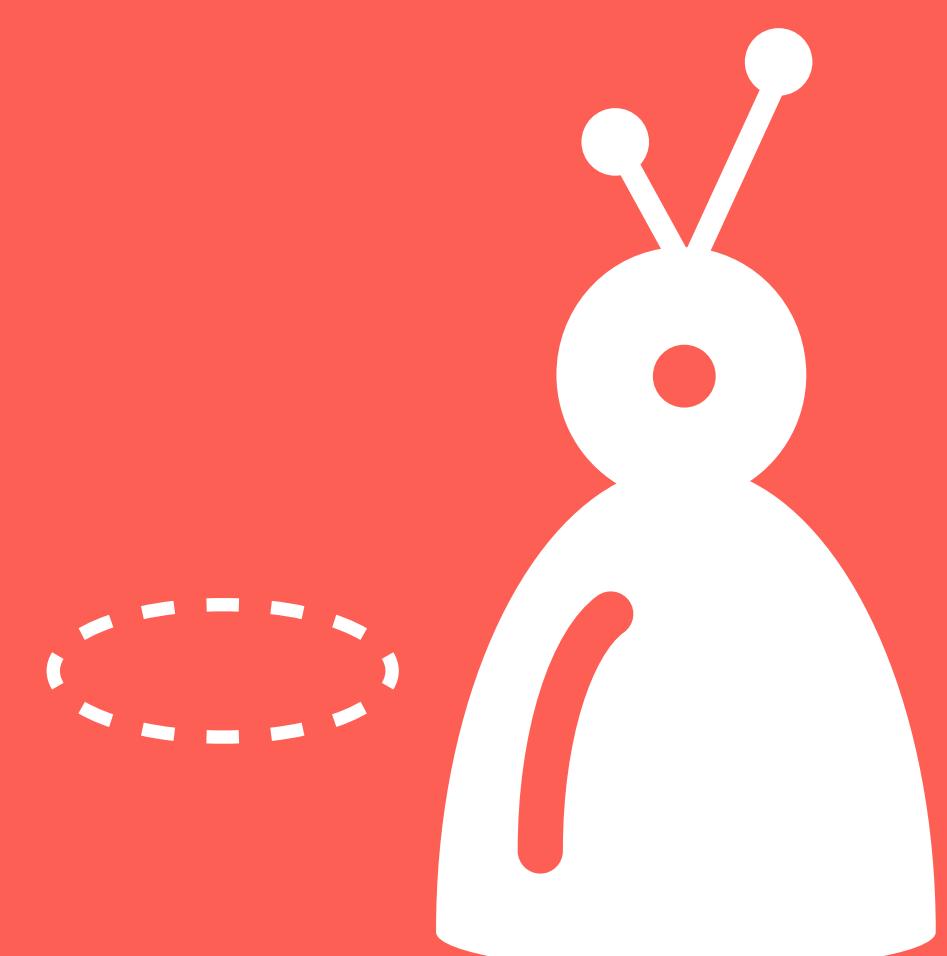
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# Cool stuff to try

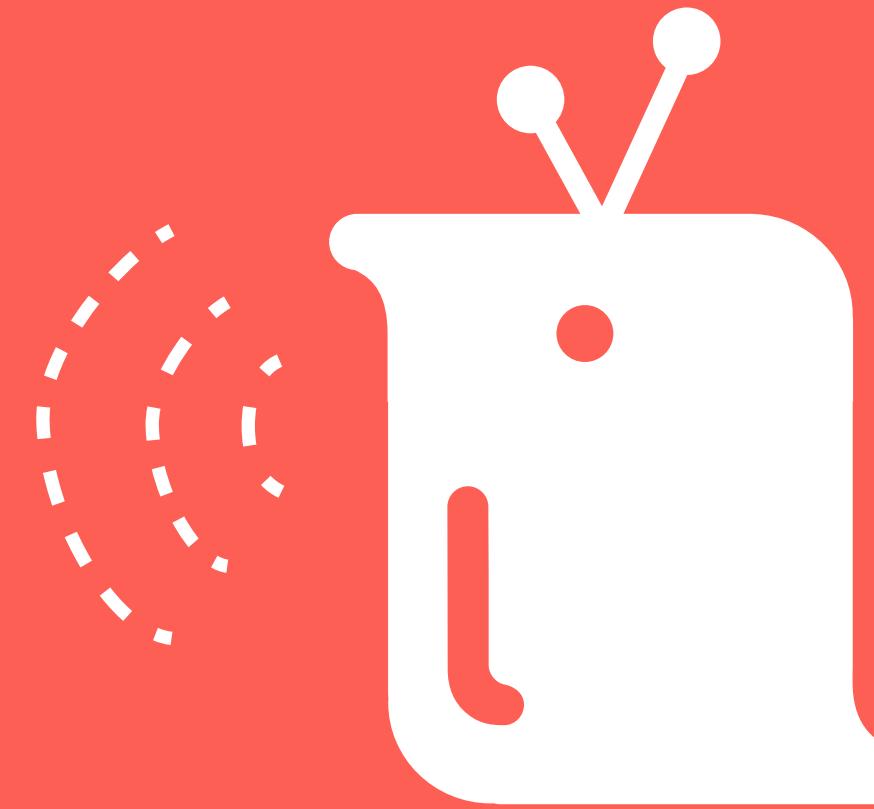
Ask ChatGPT to generate a unique recipe for a new, unheard-of dish that no one has ever tasted before.



Challenge ChatGPT to write a personalized story based on a few keywords you provide.



Ask ChatGPT to create an original poem based on a particular topic or theme, and see how creative and imaginative it can be.



Try asking ChatGPT to create a new game or puzzle, and see if it can come up with something that is both fun and challenging to play.

# Context, Bias and Fake News

ChatGPT will use the actual chat history to help generate further results. This chat history is what it knows about your conversation and input, and is referred to as the context.

The algorithm will use this context to influence how it answers your prompts. This means, it works best if you have a chat history that is about one subject only. It sometimes helps to start with a fresh chat to get different results or if you switch tasks. It also helps sometimes to either feed information into ChatGPT to build some context at the beginning, or to give it some examples of what you want to get out of it. ChatGPT, over the course of your chat history, basically learns what you expect from it.

The other reason is that the algorithm can only deal with a limited amount of

context. This means that a conversation can become too long and ChatGPT won't remember the start of it. The 'token limit' (a token can consist of multiple characters) seems to be 8192.

Think of it being around 30K English words, or about 10 pages of text.

## Fake News

Now that you've seen first hand some of the fascinating things ChatGPT can do, it's time for a cautionary message.

Because the output ChatGPT generates is so close to what we see and trust every day, it's easy to

be suckered into accepting it all on face value. Never forget that what you see coming out of ChatGPT is the result of an algorithm that – in essence – does nothing more than predict the next word in a sentence – it just does it in an extremely sophisticated way.

That predictive nature means it will generate responses that are very similar to things you might find in the real world – similar, but not the same. It's not very safe with facts, for instance, but that won't stop it from generating answers with fake information that look very plausible.

The same goes for anything ChatGPT says you at face value. You'll have to check it, double check it, and triple check it – especially where it impacts important decisions.

To avoid false information generated by ChatGPT, fact-check everything rigorously and use your critical thinking skills.

Cross-checking the output against real-world data from multiple independent sources can help to identify any inaccuracies or falsehoods. Be aware of the limitations of the tool and the data it's drawing on, and to consider the potential biases or inaccuracies in the input prompts.

Using multiple AI tools and real world sources, and comparing their output to ensure consistency and accuracy can help uncover false information.

Remember, it's on you, the user, to use ChatGPT and other AI tools with care and diligence, and to always question the veracity of the information generated.

### Bias

Besides its hallucinatory habits, the predictive nature of the algorithm means that any bias present in the training data (the training data basically includes all of the textual information in the world) will also be present in ChatGPT.

For instance, minorities will be underrepresented.

When asked to describe a businessperson, chances are it will describe a white male. It's up to you to actively steer it away from bias where you need diversity.

As with any AI tool, it's important to check the information coming from ChatGPT for bias. One of the best ways to do this is to compare the output with real-world data and observations. By cross-referencing ChatGPT's ideas with existing research and knowledge, you can identify any biases or inaccuracies in the output.

Again, use those critical thinking skills!

A very useful technique is to test the output with different

prompts and variables, to ensure that the tool is not consistently generating biased or one-dimensional results. It's also important to be aware of the limitations of the tool and the data it's drawing on, and to interpret the results with a critical eye.

Done right, using ChatGPT can even help to eliminate biases and preconceptions that humans may have when generating ideas. AI can analyze data in a more objective way, without being influenced by the limited range of personal beliefs or opinions present in the innovation team.



The fact that ChatGPT can 'hallucinate' nonexistent facts and ideas is a problem during research, not so much during the generation of new ideas! Here, you'll also need to do fact checking, but in hard reverse: you want to come up with ideas that do not exist and are 100% hallucinated!

# 3

# Ideation and the Design Process

What do we mean by ideation? Ideation is the fun and exciting process of generating ideas, and it's an essential step in any innovation process.

But how do you come up with new and innovative ideas? One way to tackle this challenge is by using a structured design process. One such process is the Double Diamond, which is widely used in design thinking.

The Double Diamond consists of four stages: Discover, Define, Develop, and Deliver.

In this chapter, we'll briefly introduce the Double Diamond process and how we will use it to guide our innovation journey. With a

structured approach like the Double Diamond, we can streamline the ideation process and generate more effective solutions.

By using ChatGPT in combination with the Double Diamond, we can bring a new level of creativity and efficiency to our ideation process.

Leveraging the power of artificial intelligence in this way, we can generate a vast number of potential solutions and ideas, which we can then refine and develop using the Double

Diamond process. And the great thing is, we can do it faster and better than before.

ChatGPT and traditional innovation and ideation processes are not enemies. They can work together. And ChatGPT can definitely help you get more out of your innovation journey.

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Ebook

# The Design Process

Never fear, there is a method to the madness of ideation. It's not all just a creative free for all. In the past decades, a clear, straightforward process has crystallized that helps creative teams structure their ideation process, called the Double Diamond Design Process. We'll use it in this book to guide our ideation.

Now, I know there are many other design processes out there that may be just as good or better than the Double Diamond – we came up with an alternative process for the book [\*\*Design A Better Business\*\*](#) that really highlights the iterative nature of the process – and Generative AI definitely also works in those processes.

For this ebook, I chose to focus on the Double Diamond design process since it is commonly used and well known.

Let's dive into the Double Diamond process to see what makes it tick.

## Diverge-Converge

At the core, ideation is all about generating ideas and then selecting ideas. In ideation speak, we call this '*diverging*' and '*converging*'. When you're diverging, you're generating new options. When you're converging, you're selecting among those options for a direction to take. Together, a diverge-converge step can be visualized in a way that resembles a diamond shape.

## Double Diamond

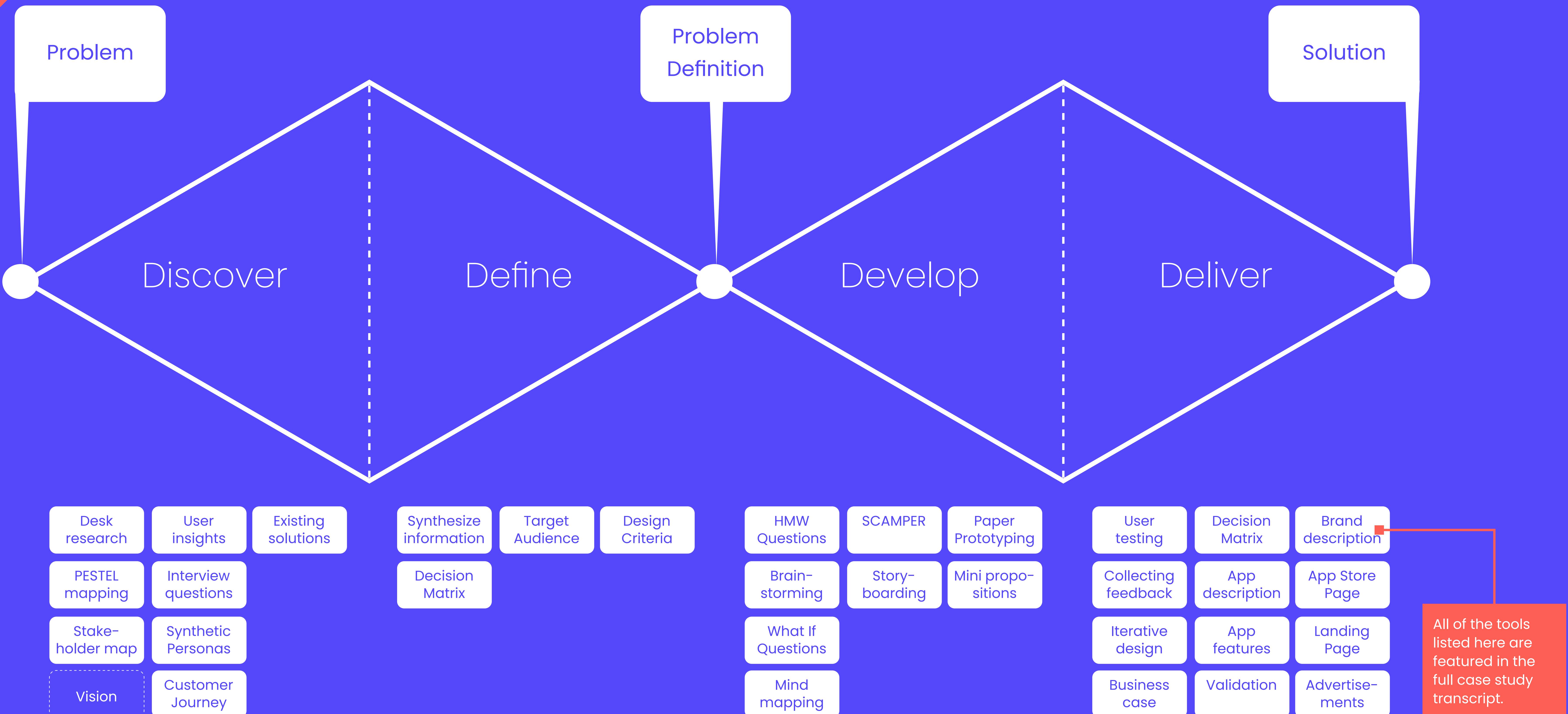
On a higher level, the innovation process as a whole can be seen as a series of such diverge-converge phases put

together. Since the visual representation of these diverge-converge stages looks like two diamonds, it is called the Double Diamond model of innovation.

## Four Stages

The Double Diamond innovation model has four stages. As I'm sure many of you are familiar with this model, I won't dive into much detail here, but for those of you that are interested, you can find more information at chapter 5 where I will give detailed examples for each step of the process.

# Double Diamond



## Discover (Diverge)

Gain a deep understanding of the problem space, user needs and constraints, and the existing solutions

## Define (Converge)

Identify the most promising problem areas to focus on

## Develop (Diverge)

Generate a range of possible solutions

## Deliver (Converge)

Finalize the selected solution and prepare to build it

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# Ideating with Generative AI: Taking the Double Diamond to the next level

In any innovation process, we as humans are struggling against our own limitations. These limitations show up in the form of cognitive biases.

Cognitive biases are patterns of thinking that can lead people to make systematic errors in judgment or decision-making. These biases are a result of the way the human brain processes information and are often the result of mental shortcuts or heuristics that we use to simplify complex information. While these biases can sometimes be useful in helping us make quick decisions or simplify

complex information, they can also lead us to make errors in judgment or decision-making.

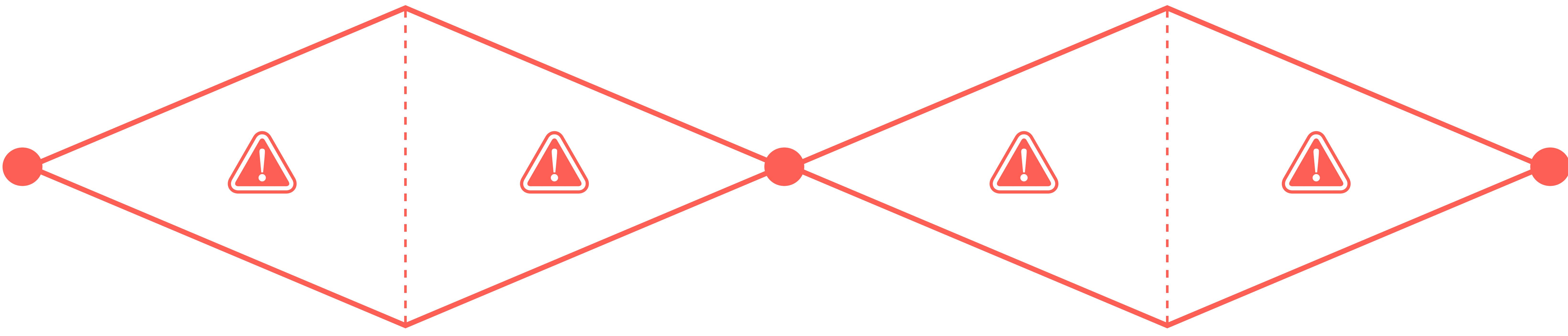
Some common examples include confirmation bias, where we seek out information that confirms our existing beliefs or assumptions, and availability bias, where we prioritize information that is easily available or that comes to mind quickly.

Recognizing and overcoming cognitive biases is an important part of critical thinking and decision-making.

For every stage of the Double Diamond Design process, human participants have to deal with different cognitive biases. Generative AI and ChatGPT can help mitigate negative outcomes from these biases.

# The Double Diamond and...

# Cognitive Bias



## Discover

### → Confirmation bias:

Teams may favor information that confirms their existing beliefs or assumptions and avoid looking for information that contradicts these beliefs. We can use prompts that are designed to look specifically for information that contradicts our beliefs.

### → Availability bias:

Teams may favor solutions that are easily available or that come to mind quickly. ChatGPT can help by providing alternative perspectives and challenging assumptions to help teams consider a broader range of possibilities.

### → Choice overload:

Too much information can lead to decision paralysis and difficulty in prioritizing which insights are most relevant. This may be influenced by the cognitive biases of decision fatigue and information overload. ChatGPT can help by providing summaries and insights to help teams quickly understand and prioritize information.

### → False consensus effect:

The tendency to overestimate the extent to which others share one's beliefs, attitudes, or preferences, which can lead to assumptions about user needs or preferences that may not be accurate.

## Define

### → Anchoring bias:

Teams may become anchored to an initial piece of information, such as an assumption or a solution, and have difficulty adjusting to new information. This may limit their ability to explore alternative solutions. ChatGPT can help by providing alternative perspectives and challenging assumptions to help teams break free from the anchor and consider a broader range of possibilities.

### → Status quo bias:

Teams may favor solutions that maintain the current state of affairs, rather than considering alternatives. This may be influenced by the cognitive bias of status quo bias. ChatGPT can help by providing alternative perspectives and challenging assumptions to help teams consider a broader range of possibilities.

### → Groupthink:

Teams may prioritize consensus over individual creativity, leading to a limited range of potential solutions. This may be influenced by the cognitive bias of groupthink. ChatGPT can help by providing alternative perspectives and challenging assumptions to help teams consider a broader range of possibilities.

## Develop

### → Narrow framing:

Teams may frame the problem too narrowly, leading to a limited range of potential solutions. This may be influenced by the cognitive bias of anchoring. ChatGPT can help by providing alternative perspectives and framing options to help teams consider a broader range of possibilities.

### → Overconfidence bias:

Teams may be overconfident in their solutions or assumptions, leading to a lack of critical evaluation or testing. This may be influenced by the cognitive bias of overconfidence. ChatGPT can help by providing alternative perspectives and challenging assumptions to help teams consider a broader range of possibilities.

### → Sunk cost fallacy:

Teams may prioritize solutions that they have already invested time or resources in, rather than considering alternatives. This may be influenced by the cognitive bias of sunk cost fallacy. ChatGPT can help by providing alternative perspectives and challenging assumptions to help teams consider a broader range of possibilities.

## Deliver

### → Confirmation bias (see above):

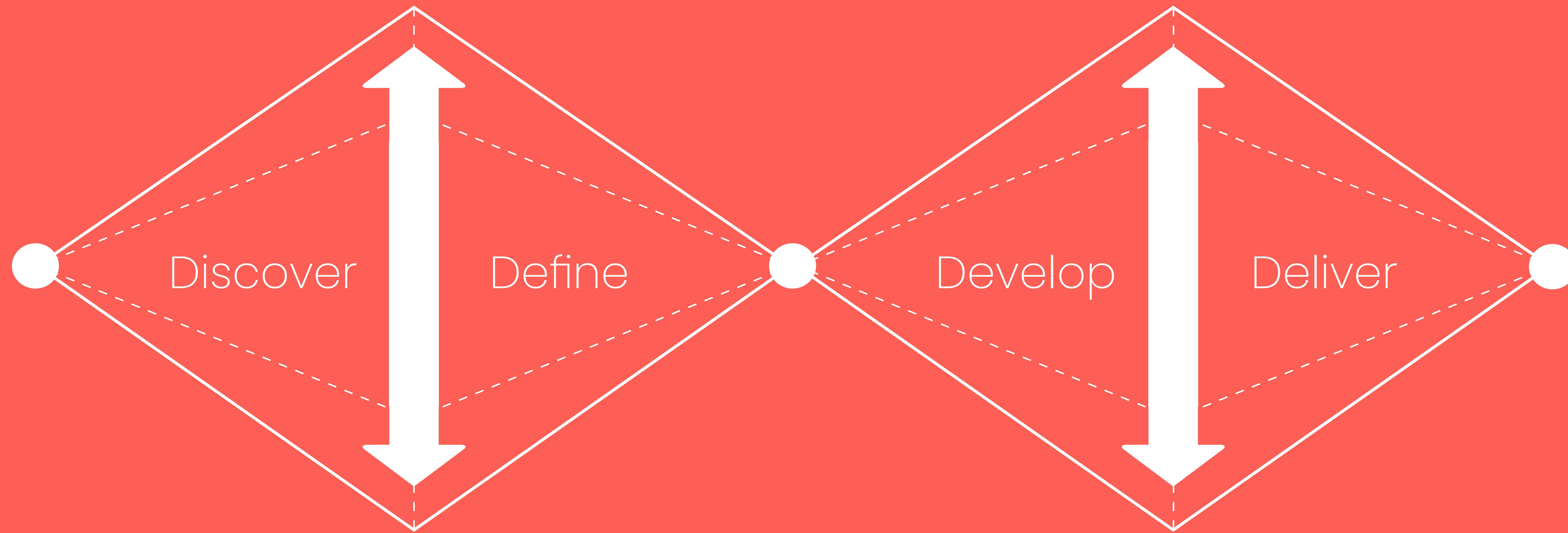
This can also be a problem during the Deliver stage, as designers may become overly attached to their own designs and overlook user feedback or other data that suggests the need for changes or revisions.

### → Endowment effect:

The tendency to value something more highly simply because one owns it, which can lead to resistance to changing existing designs or products.

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# Choice Overload



Although ChatGPT, when used right, can be a big help in overcoming cognitive biases, it also introduces a new problem.

Or rather, it makes a big problem of the traditional innovation process even more apparent: the problem of too much information, or choice overload.

Choice overload can hinder the decision-making process and lead to analysis paralysis. The fact that it is so easy to quickly explore many more ideas with ChatGPT makes

this problem even more important.

When using ChatGPT and other AI tools for ideation and innovation, it's not so much the generative (diverging) part that you need to worry about: it's rather the convergent part of the creative process, where you make decisions.

- How are you going to manage the load of ideas?
- How to make sense of them?
- How to filter and select?

Luckily, ChatGPT can help here too – in combination with existing frameworks. In the convergent stages of the double diamond, synthesizing, summarizing and decision making with ChatGPT will be showcased.

Ready to  
dive into  
the case?

# 4

# Case study: Sleeping Problems

Great, you have sent your first prompts and played around with ChatGPT. Now it's time to do some real innovation work!

When it comes to ideation, the Double Diamond model is a proven framework for generating and refining ideas. But how can you apply this model in a way that is both efficient and effective?

## Case study

In this chapter, we'll look at a case study from the real world that shows how the Double Diamond model may be used with ChatGPT. You'll have a better understanding of how ChatGPT can be used as a potent ideation tool by following along

with this case study. This will undoubtedly give you helpful insights into how ChatGPT can assist you in more efficiently generating and refining ideas, regardless of whether you are new to the Double Diamond model or an experienced practitioner.

## What we'll do

We'll begin by introducing the case study and talking about the difficulties the team had when attempting to come up with fresh ideas. We'll then get into the intricacies of their step-by-

step application of the Double Diamond model using ChatGPT.

You'll discover the various stages of the Double Diamond model and how ChatGPT may be utilized to its full potential in each stage.

By the end of this chapter, you'll be able to use ChatGPT to use the Double Diamond model in a real-world scenario.

## Scope

Before we start the case study, we'll need to set

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sets on the scope, as you would in any real-world scenario where you and your innovation team set out on an innovation journey.

In this case, we start out with the following requirements from our manager:

*"Come up with a new product around sleeping problems. It should be a digital product or service, it needs to have a large potential market, and it needs to really help people."*

We'll use ChatGPT and the Double Diamond model to tackle this product development challenge, making sure we meet these requirements.

## Discover Stage

In the first stage of the model, we will use ChatGPT to explore sleeping problems. This will involve diverging and generating

as many ideas as possible. The goal is to gain a deep understanding of the problem space, user needs and constraints, and the existing solutions.

## Define Stage

During the second stage, we will use ChatGPT to explore the potential market for each of the most promising ideas.

We will gather data on the size of the market, the level of competition, and the potential profitability of each idea we come up with in this stage.

This will help us to converge on the idea that has the largest potential market and that has the most significant impact on our customers' lives.

## Develop Stage

In the third stage, we will use ChatGPT to develop a prototype of the selected idea.

We will explore different digital product or service options. Here, we'll create multiple options that we can validate in the Deliver stage.

We'll use ChatGPT to refine our ideas, making sure they are feasible and desirable.

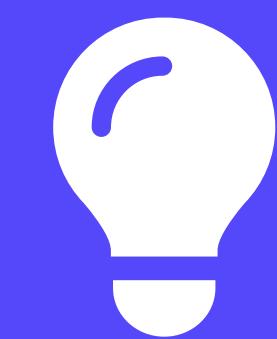
## Deliver Stage

Finally, in the fourth stage, we will use ChatGPT to test the prototype with potential customers, gathering feedback and iterating on the design.

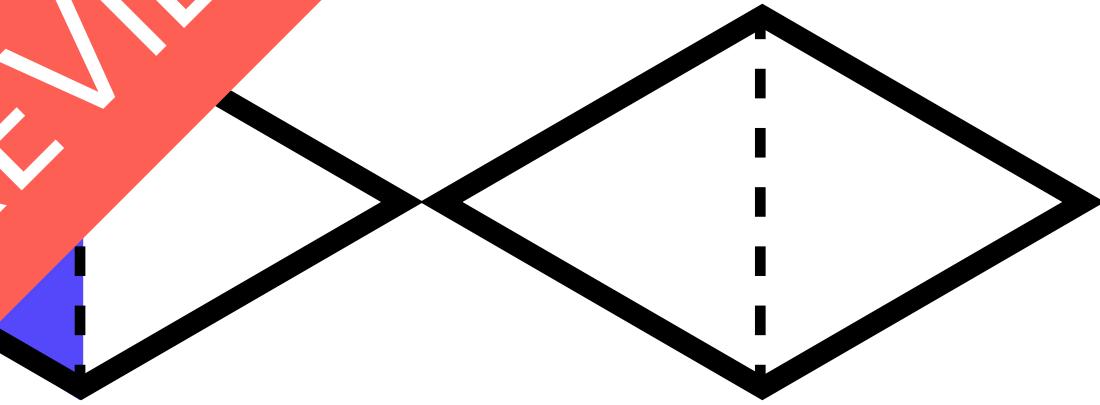
This iterative process of diverging and converging will help us refine our product until it meets the

constraints set by our manager memo.

With ChatGPT and the Double Diamond model, we're confident that we can develop a digital product or service that helps people sleep better and has a large potential market.



The point of the case study is to show the techniques used for ideation – using divergent and convergent thinking – not per se to get the best possible outcome. So, the solutions and ideas coming out of this case study may not immediately deliver the next unicorn, but the process should be insightful at least.



# Discover

The Discover phase is the first phase of the double diamond model. This is where we start our journey. Our goal in this phase is to find a problem worth solving – a problem many people suffer from, has a high impact, and there isn't a good solution for it yet.

- 1** What types of sleeping problems are there?
- 2** Who suffer from these problems?
- 3** How many people suffer from these problems?
- 4** What causes these problems?
- 5** What is the effect of having these problems?
- 6** What trends in the world are influencing the problem?

Six questions we'll try to answer in this stage.

To do that, we'll first explore the problem space, then do user research, and finally look at current solutions that are already out there for inspiration. During this stage, we'll six questions as a guideline and attempt to answer each one.

In the Lean Startup, a problem worth solving refers to a real and pressing issue or need experienced by a group of potential customers. It is a problem that causes significant

enough pain or frustration that customers are willing to pay for a solution or invest time and effort to find a solution.

Identifying a problem worth solving is a critical first step in the Lean Startup process. A problem worth solving should be specific, measurable, and actionable, with a clear and sizable target market and a compelling value proposition.

In this way, we can focus on problems that meet the needs of customers and generate revenue, and make sure that any solutions we develop later on will meet criteria set by our manager: Any solutions created need to have a large potential market and they need to really help people.

The questions we're answering all lead towards exploring potential problems worth solving. In the next stage, we will select one problem worth solving based on this research.

# Exploring the prob- lem space

Let's start by prompting ChatGPT to come up with the top reasons for sleep problems.

This will help us get insight in the types of sleeping problems, as well as the prevalence of each problem. We can create a prompt that does a lot of the work for us.

In that prompt, we ask ChatGPT to find the most common sleeping problems, and to rate the results by the amount of sufferers. This helps ensure it comes back with prevalent problems, not obscure ones.

- P** List the top 5 most common sleeping problems that people face, sorted by the number of people that suffer from it. Output the result as a table with columns sleeping problem, typical groups of people suffering, estimated size of the number of sufferers worldwide, percentage of global population, main causes, main effects on daily life. Format the column 'Estimated Size of Sufferers Worldwide' as a plain number in millions, e.g. 770. Format the column 'percentage of global population' as a percentage, e.g. 75%.



Sleeping Problem	Typical Groups of People Suffering	Estimated Size of Sufferers Worldwide (in millions)	Percentage of Global Population	Main Causes	Main Effects on Daily Life
INSOMNIA	Adults, elderly	770	10%	Stress, anxiety, depression, medical conditions	Fatigue, irritability, memory problems, difficulty concentrating, reduced work/school performance
SLEEP APNEA	Overweight, middle-aged, elderly	425	5.50%	Obesity, smoking, alcohol, family history	Excessive daytime sleepiness, morning headaches, mood changes, cardiovascular issues, reduced work performance
RESTLESS LEGS SYNDROME	Adults, pregnant women, elderly	315	4.00%	Unknown, genetics, pregnancy, medication	Sleep disruption, fatigue, daytime sleepiness, irritability, reduced work/school performance
NARCOLEPSY	Teenagers, adults	30	0.40%	Genetic, immune system, brain chemistry	Excessive daytime sleepiness, sleep attacks, sleep paralysis, hallucinations, disrupted work/school performance
CIRCADIAN RHYTHM DISORDERS	Shift workers, travelers	75	1.00%	Shift work, jet lag, irregular schedules	Insomnia, excessive daytime sleepiness, fatigue, mood changes, reduced work/school performance



Producing the output as a table means we can easily paste this in google sheet and from there to other tools.



To keep it short, here I asked it to list 5 problems. Normally, I would like to have at least 10 options to choose from

We've numbered the prompts in this ebook for easy reference!

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prompts

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# Dissecting a prompt



List the top 5 most common sleeping problems that people face, sorted by the number of people that suffer from it. Output the result as a table with columns sleeping problem, typical groups of people suffering, estimated size of the number of sufferers worldwide, percentage of global population, main causes, main effects on daily life. Format the column 'Estimated Size of Sufferers Worldwide' as a plain number in millions, e.g. 770. Format the column 'percentage of global population' as a percentage, e.g. 75%.

**Green:**

The subject we want to focus on with this prompt.

**Blue:**

Specifies how we want to filter and prioritize

**Red:**

Specifies the output format as a table.

**Orange:**

Specifies the formatting instructions for table cells.

Ok, so that's a start. We now know a little more about the most common sleeping problems, the estimated number of people that suffer from them, and the

most important causes and effects. With this, we can start to put together a mental map of the problem space.

Before we continue, remember to validate the numbers ChatGPT gave us. You can see this is necessary by running the prompt again. ChatGPT

gives us different numbers! This reiterates that ChatGPT is not a search engine, don't trust anything it says. This step may take a bit of time but it's worth it.

# Trends and PESTEL mapping

To answer our question about trends and influences in the world in relation to sleeping problems, we can create a PESTEL analysis.

A PESTEL map (also known as PESTEL or PESTLE analysis) is a mapping that helps organizations identify and understand the external factors that might impact their operations, performance, and overall success in a certain domain.

PESTEL stands for:

**Political:** these factors include government policies, regulations, political stability, and potential political changes that could potentially affect the organization's operation.

**Economic:** including economic growth, inflation, exchange rates, interest rates, and other macroeconomic factors that can impact an organization's financial performance.

**Sociocultural:** societal trends, demographic shifts, cultural values, and attitudes that can influence consumer behavior and demand for products or services.

**Technological:** technological advancements, innovation, and the overall state of technology in an industry, which can

impact an organization's competitiveness and efficiency.

**Environmental:** environmental regulations, climate change, and other ecological issues that can affect an organization's operations, reputation, and sustainability.

**Legal:** laws and regulations related to labor, health and safety, consumer protection, and other legal aspects that can impact an organization's compliance and risk management.

# PESTEL analysis

Carrying out the PESTEL factors gives insight into the external environment and trends that occur. This will give ideas for opportunities and threats associated with our problem space.

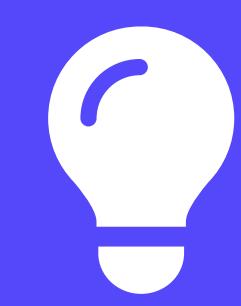
- P** Create a PESTEL analysis around sleeping problems. Format your output as a table. Use the following columns: Factor, Examples, Trends.

4.02

33

> Get these prompts

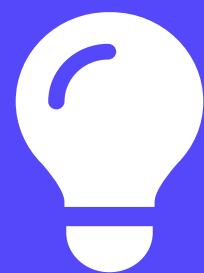
Factor	Examples	Trends
Political	Healthcare policies, sleep-related regulations	Growing awareness, policies supporting mental health and sleep hygiene, workplace regulation
Economic	Sleep aid market, economic burden of sleep disorders	Increasing demand for sleep solutions, high costs associated with sleep disorders
Sociocultural	Sleep habits, work-life balance, social awareness	Increasing awareness, sleep becoming a wellness priority, impact of technology on sleep
Technological	Sleep tracking devices, sleep therapy apps, telemedicine	Advancements in sleep technology, AI-driven sleep solutions, increasing accessibility
Environmental	Noise pollution, light pollution, climate change	Urbanization causing sleep disruptions, rising awareness of environmental impact on sleep quality
Legal	Workplace sleep guidelines, sleep disorder treatments	Stricter regulations on sleep disorder treatments, sleep-friendly work policies



Since ChatGPT has a history (also called its context) referring to previous results is straightforward. By doing this, you save time re-prompting and can build on previous results.

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Now that we have our PESTEL analysis, we cross-reference the trends and examples with the problems and groups we found earlier.



In this prompt, we use the history built up by the previous prompts as a basis, and ask ChatGPT to cross reference earlier results to create one overview result. Cross-referencing like this saves a lot of time and effort!

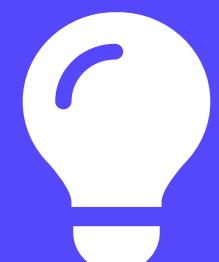
- P** Cross reference the trends from the PESTEL analysis with the most common sleeping problems you generated earlier. Format the output as a table with columns: sleeping disorder, PESTEL factor, cross-referenced trends, estimated impact of this trend (high, medium, low). For each sleeping problem, include cross referenced trends for each PESTEL factor.

Sleeping Disorder	PESTEL Factor	Cross-Referenced Trends	Estimated Impact of this Trend
INSOMNIA	Political	Policies supporting mental health and sleep hygiene	Medium
	Economic	High costs associated with sleep disorders	Medium
	Sociocultural	Increasing awareness, impact of technology on sleep	High
	Technological	Advancements in sleep technology, AI-driven sleep solutions	High
	Environmental	Urbanization causing sleep disruptions	Medium
	Legal	Stricter regulations on sleep disorder treatments	Low
SLEEP APNEA	Political	Growing awareness, workplace regulations	Medium
	Economic	Increasing demand for sleep solutions	High
	Sociocultural	Sleep becoming a wellness priority	Medium
	Technological	Sleep tracking devices, telemedicine	High
	Environmental	Rising awareness of environmental impact on sleep quality	Low
	Legal	Sleep-friendly work policies	Low
RESTLESS LEGS SYNDROME	Political	Policies supporting mental health	Low
	Economic	High costs associated with sleep disorders	Medium
	Sociocultural	Increasing awareness of the syndrome	Medium
	Technological	Advancements in sleep technology	Medium
	Environmental	Urbanization causing sleep disruptions	Low
	Legal	Stricter regulations on sleep disorder treatments	Low
NARCOLEPSY	Political	Growing awareness of sleep disorders	Low
	Economic	Economic burden of sleep disorders	Medium
	Sociocultural	Sleep becoming a wellness priority	Low
	Technological	Sleep tracking devices, telemedicine	Medium
	Environmental	Rising awareness of environmental impact on sleep quality	Low
	Legal	Stricter regulations on sleep disorder treatments	Low
CIRCADIAN RHYTHM DISORDERS	Political	Workplace regulations	Medium
	Economic	Increasing demand for sleep solutions	Medium
	Sociocultural	Impact of technology on sleep, sleep becoming a wellness priority	High
	Technological	Sleep tracking devices, AI-driven sleep solutions	High
	Environmental	Urbanization causing sleep disruptions	Medium
	Legal	Sleep-friendly work policies	Medium

4.1.03

> Get these prompts

While exploring the problem space, it can be useful to understand which stakeholders are involved: The problem does not only hit those that are suffering from sleeping problems, it may have wider implications.



As you can see, the stakeholders for each group are more or less the same. The impact on each of these stakeholders is also the same in this output, but the effects are not. We can use this information later on. For now, let's keep exploring

- P** Create a table with the most common sleeping problems. Include the stakeholders that are impacted. Stakeholders include people and organizations suffering from the problem directly and indirectly. Also include the level of impact (low, medium, high). Output your result as a table with columns: Sleeping Disorder, Stakeholders, Impact, Level of impact. For each sleeping disorder, list each group of stakeholders separately.

Sleeping Problem	Stakeholders	Impact	Level of Impact
INSOMNIA	Individuals suffering from insomnia	Reduced quality of life, health issues, impaired work/school performance	High
	Employers	Lower productivity, increased absenteeism, higher healthcare costs	Medium
	Healthcare providers	Increased demand for sleep disorder treatments and consultations	Medium
	Family members	Disrupted sleep, stress, and potential relationship strain	Medium
SLEEP APNEA	Individuals with sleep apnea	Health risks, reduced quality of life, impaired work/school performance	High
	Employers	Lower productivity, increased absenteeism, higher healthcare costs	Medium
	Healthcare providers	Increased demand for sleep apnea treatments and consultations	Medium
	Family members	Disrupted sleep, stress, and potential relationship strain	Medium
RESTLESS LEGS SYNDROME	Individuals with RLS	Disrupted sleep, discomfort, reduced quality of life	High
	Employers	Lower productivity, increased absenteeism, higher healthcare costs	Medium
	Healthcare providers	Increased demand for RLS treatments and consultations	Medium
	Family members	Disrupted sleep, stress, and potential relationship strain	Medium
NARCOLEPSY	Individuals with narcolepsy	Reduced quality of life, health issues, impaired work/school performance	High
	Employers	Lower productivity, increased absenteeism, higher healthcare costs	Medium
	Healthcare providers	Increased demand for narcolepsy treatments and consultations	Medium
	Family members	Disrupted sleep, stress, and potential relationship strain	Medium
CIRCADIAN RHYTHM DISORDERS	Individuals with CRD	Insomnia, fatigue, reduced quality of life	High
	Employers	Lower productivity, increased absenteeism, higher healthcare costs	Medium
	Healthcare providers	Increased demand for CRD treatments and consultations	Medium
	Family members	Disrupted sleep, stress, and potential relationship strain	Medium

# Problem Space

We're here to finalize our research into the problem space, and learn more about the people suffering from the problems.

We'd love to know a bit about the different professions sufferers from each problem typically have. Maybe there are professions that are impacted by these problems more and that we can target more easily later on.

Since we want to create a digital solution (as per our manager's briefing), we'd also like to know if these groups of people have smartphones. Let's adjust the prompt by adding this information.

- P** What groups of people, professions, or age groups experience these sleeping disorders the most? Include Military Personnel and Business Travelers. Create a table with 5 professions. Columns: profession, most common sleeping problem, estimated size of the profession worldwide (millions), percentage of sufferers worldwide, number of sufferers. Sort descending by number of sufferers.

4.1.05

36

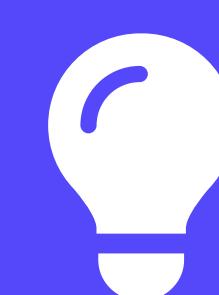
 Get these prompts

Profession	Most Common Sleeping Problem	Estimated Size of the Profession Worldwide (millions)	Percentage of Sufferers Worldwide	Number of Sufferers (millions)
Shift Workers	Circadian rhythm disorders	150	50%	75
Business Travelers	Circadian rhythm disorders	80	38%	30
Military Personnel	Insomnia	25	60%	15
Nurses	Insomnia	30	40%	12
Medical Residents	Sleep deprivation/Insomnia	10	70%	7

- P** Add a two columns with percentage of smart phone owners and number of smartphone owners

4.1.06

Profession	Most Common Sleeping Problem	Estimated Size of the Profession Worldwide (millions)	Percentage of Sufferers Worldwide	Number of Sufferers (millions)	Percentage of Smart-phone Owners	Number of Smartphone Owners (millions)
Shift Workers	Circadian rhythm disorders	150	50%	75	90%	135
Business Travelers	Circadian rhythm disorders	80	38%	30	98%	78.4
Military Personnel	Insomnia	25	60%	15	80%	20
Nurses	Insomnia	30	40%	12	95%	28.5
Medical Residents	Sleep deprivation/Insomnia	10	70%	7	97%	9.7



Note that all of the groups have great access to digital technology – or at least smartphones. Military personnel seem to have less access, which is quite understandable from a security perspective.

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# User Research

Now that we have an idea for the types of problems, stakeholders involved, and the causes and effects from problems, we need to zoom in more on the actual sufferers by doing some user research. We want to find out more about user insights and needs.

We do this by creating user journey maps or empathy maps to get insights into user behaviors, motivations and pain points.

The tools normally used to get input from users are (among others) ethnographic research, interviews, surveys, analysis of user behavior, and feedback. Getting real data from real users is super important for any design process. ChatGPT can't replace that.

However, there are at least three things that

Three things ChatGPT can help with in User Research

- 1** Create surveys, direct ethnographic research and create interview questions
- 2** Create synthetic personas to get a first idea of what real personas could look like
- 3** Impersonate synthetic personas and answer the survey questions to get a basic idea of the kinds of answers you might expect from real people.

ChatGPT can help with: creating surveys, creating synthetic personas, and impersonating these personas to simulate conversations, answering interview questions, and surveys. In this section, we'll

dive into each of these three options and discover how they can help us speed up our user research in this stage.



To keep the length of the ebook manageable, I have focused only on the Circadian Rhythm Disorder for subsequent sections. The research on other sleeping problems is not included, but has been done by the innovation team.

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Let's start by creating interview questions. As you already know, interview questions are a great way to gather valuable insights into user needs, behaviors, and motivations. Well-crafted questions facilitate understanding of pain points, preferences, and experiences.

 I want to create user interviews to do user research on people suffering from Circadian Rhythm Disorders. For this, I want to create a survey. Create 10 questions for this interview. Focus on questions that highlight recent experiences. For each question also describe how the answers will help understand user needs, behaviors, and motivations.

4.107

38

> Get these prompts

	1	<b>Question:</b> Can you describe a recent situation where your Circadian Rhythm Disorder impacted your work or personal life? <b>Purpose:</b> To understand how the disorder affects their daily life, specifically in recent experiences, and identify common challenges faced by the user.
	2	<b>Question:</b> How do you currently track or manage your sleep schedule? <b>Purpose:</b> To understand the tools or methods they use to maintain their sleep schedule, which can inform potential improvements or solutions for them.
	3	<b>Question:</b> What steps have you recently taken to improve your sleep quality or adjust to your circadian rhythm disruptions? <b>Purpose:</b> To learn about the user's current strategies, habits, and solutions for dealing with their disorder and identify any gaps or unmet needs.
	4	<b>Question:</b> Can you share a recent experience where you struggled to fall asleep or wake up due to your Circadian Rhythm Disorder? <b>Purpose:</b> To gain insight into the specific challenges users face in regulating their sleep patterns and explore opportunities for assistance.
	5	<b>Question:</b> Have you recently used any sleep aids, apps, or devices to help manage your Circadian Rhythm Disorder? If so, what were your experiences with them? <b>Purpose:</b> To understand the user's experience with existing sleep aids, apps, or devices and identify potential areas for improvement or unmet needs.
	6	<b>Question:</b> How does your Circadian Rhythm Disorder affect your mood, energy levels, and productivity during the day? <b>Purpose:</b> To explore the broader impact of the disorder on the user's daily life and well-being, which may reveal additional opportunities for support.
	7	<b>Question:</b> What do you find most challenging about traveling or adjusting to new time zones as a person with a Circadian Rhythm Disorder? <b>Purpose:</b> To understand the unique challenges faced by business travelers in adjusting to time zone changes and identify potential solutions to address these issues.
	8	<b>Question:</b> Can you describe a recent social situation where your Circadian Rhythm Disorder impacted your ability to engage with others or participate in activities? <b>Purpose:</b> To gain insight into the social impact of the disorder and explore ways to support users in maintaining social connections and activities.
	9	<b>Question:</b> What resources, support, or advice have you recently sought to help manage your Circadian Rhythm Disorder? <b>Purpose:</b> To learn about the user's current sources of information and support, which can help identify gaps in available resources and areas where additional guidance may be needed.
	10	<b>Question:</b> If you could change one thing about your current approach to managing your Circadian Rhythm Disorder, what would it be? <b>Purpose:</b> To encourage users to think about potential improvements or solutions, which can provide insights into their needs and motivations and help develop more targeted interventions or products.

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# Synthetic personas

Next, let's talk about synthetic personas: a powerful tool in the user research toolkit. ChatGPT is a great way to create them.

Synthetic personas are essentially AI-generated profiles of potential users that can be used to test and refine product designs. It's a great way to simulate a wide range of user characteristics and behaviors, which can help uncover issues that might not be immediately apparent when working with real users. Plus, it's a cost-effective and time-saving alternative to traditional user research methods.

Always remember, however, to be mindful of potential pitfalls when using synthetic personas. One concern is that AI-generated personas will not accurately

reflect the full range of human behaviors and characteristics, which can result in biased or incomplete research. It can also be challenging to ensure that the personas accurately reflect the needs and preferences of real users, which can lead to ineffective design decisions.

One possible way to get around these pitfalls is to generate a large number of synthetic personas with a range of specified characteristics that are based on real world statistics. This can help mitigate some of the potential problems with using synthetic personas for user research. By

creating a diverse set of personas, designers can better simulate a variety of user behaviors and preferences, which can help identify potential issues and opportunities for improvement. However, it is still important to critically evaluate the personas and ensure that they accurately reflect the needs and preferences of real users.

All in all, synthetic personas can be a powerful tool when used in conjunction with other research methods and with a critical eye towards their limitations.

When using ChatGPT to interview generated virtual personas, keep in mind the following tips.

- 1 ask open-ended questions to allow the persona to express their unique perspective and experiences.
- 2 be specific in your questions to gain insights into the persona's behavior and preferences.
- 3 vary your questions to avoid leading the persona towards a particular response.
- 4 consider the limitations of the technology and the generated persona's accuracy and validity.

Let's impersonate these personas using ChatGPT. We'll use Sarah and Olivia here, as they are both medical professionals.

 Create 5 personas. Each persona is a shift worker or business traveler suffering from Circadian Rhythm Disorder. Describe the persona. Give them a name, age, profession. For each persona include how it affects their daily life and the impact. Also include a quote from the persona on the problem. Output as a table.

4.108

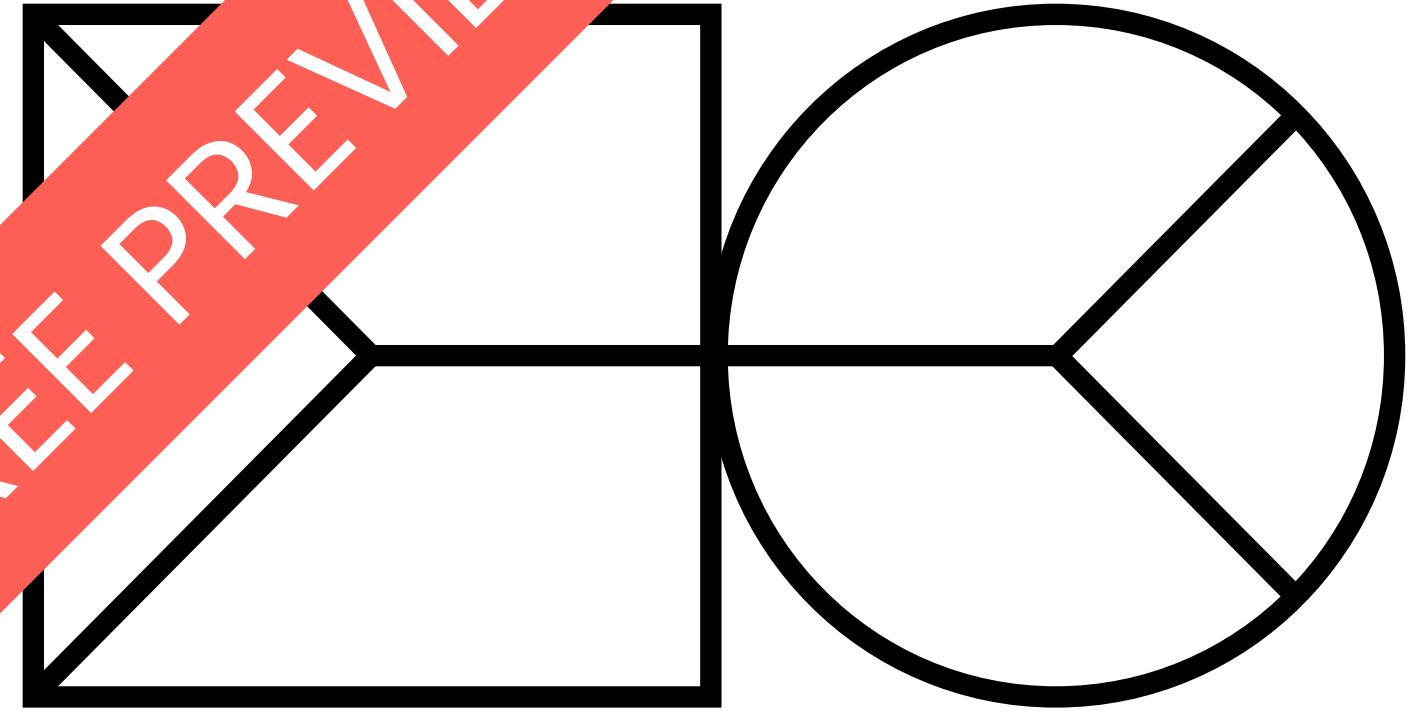
Name	Age	Profession	How It Affects Daily Life	Impact	Quote
Sarah	32	Nurse (Shift Worker)	Struggles with sleep during the day, fatigue at work, irritability	High	My exhaustion is affecting my ability to care for patients.
Mark	45	Pilot (Business Traveler)	Jet lag, difficulty adjusting to time zones, sleep deprivation	Medium	My performance suffers when I can't adjust to new time zones.
Emily	28	Factory Worker (Shift Worker)	Inconsistent sleep patterns, social isolation, low energy levels	Medium	My social life has taken a hit since I started working nights.
David	39	Sales Executive (Business Traveler)	Insomnia during business trips, difficulty focusing, mood swings	High	Losing sleep on trips makes it hard to close deals effectively.
Olivia	36	Emergency Room Physician (Shift Worker)	Sleep disruption, impaired decision-making, burnout	High	My decision-making suffers when I'm sleep-deprived, and that's dangerous.



The generated personas give a good example of bias. All of the names are standard American names. Without specific instruction, ChatGPT will most likely give results with a US bias. In Chapter 5 we'll cover extra tips to avoid bias.

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# Value Proposition Canvas

The Value Proposition Canvas is a tool used to analyze the relationship between the customer's needs and the value provided by the product or service.

ChatGPT can be a powerful tool for creating a Value Proposition Canvas, supporting you in identifying and understanding the customer's needs, generating ideas for potential solutions.

With ChatGPT, we can generate insights on the customer's problems, their jobs to be done, and their

pain points. We can then use this information to create customer profiles and identify potential value propositions that will resonate with them. We can also use ChatGPT to test our value propositions with customers and obtain feedback.

Using ChatGPT for the Value Proposition Canvas

can help us identify the most promising value propositions and refine them for maximum effectiveness. This can lead to a stronger product or service that better meets the needs of the customer and is more likely to succeed in the market.

Yes, that's right!  
That's **132 pages** full of prompt wisdom we just skipped!

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Answer the following questions for ChronoGuruX to create a Value Proposition Canvas. Customer Jobs: What tasks or jobs does the customer need to accomplish?

Customer Pains: What frustrations or difficulties do customers encounter when trying to complete these tasks or jobs?

Customer Gains: What benefits or outcomes does the customer hope to achieve by completing these tasks or jobs?

Products and Services: What specific products or services does our company offer that can help the customer complete their jobs?

Pain Relievers: How do our products or services alleviate or solve the customer's pains?

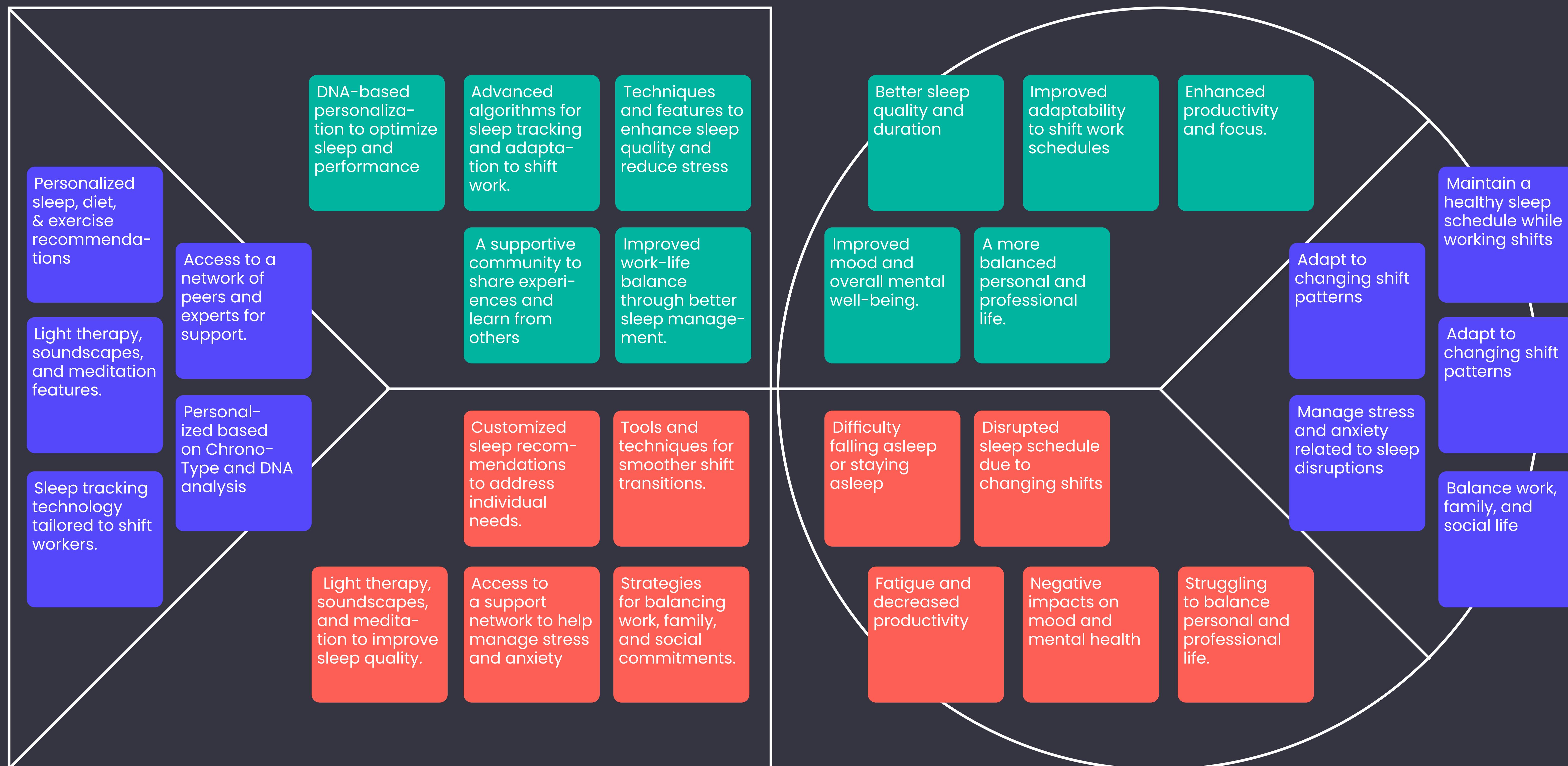
Gain Creators: How do our products or services create or amplify the customer's gains?

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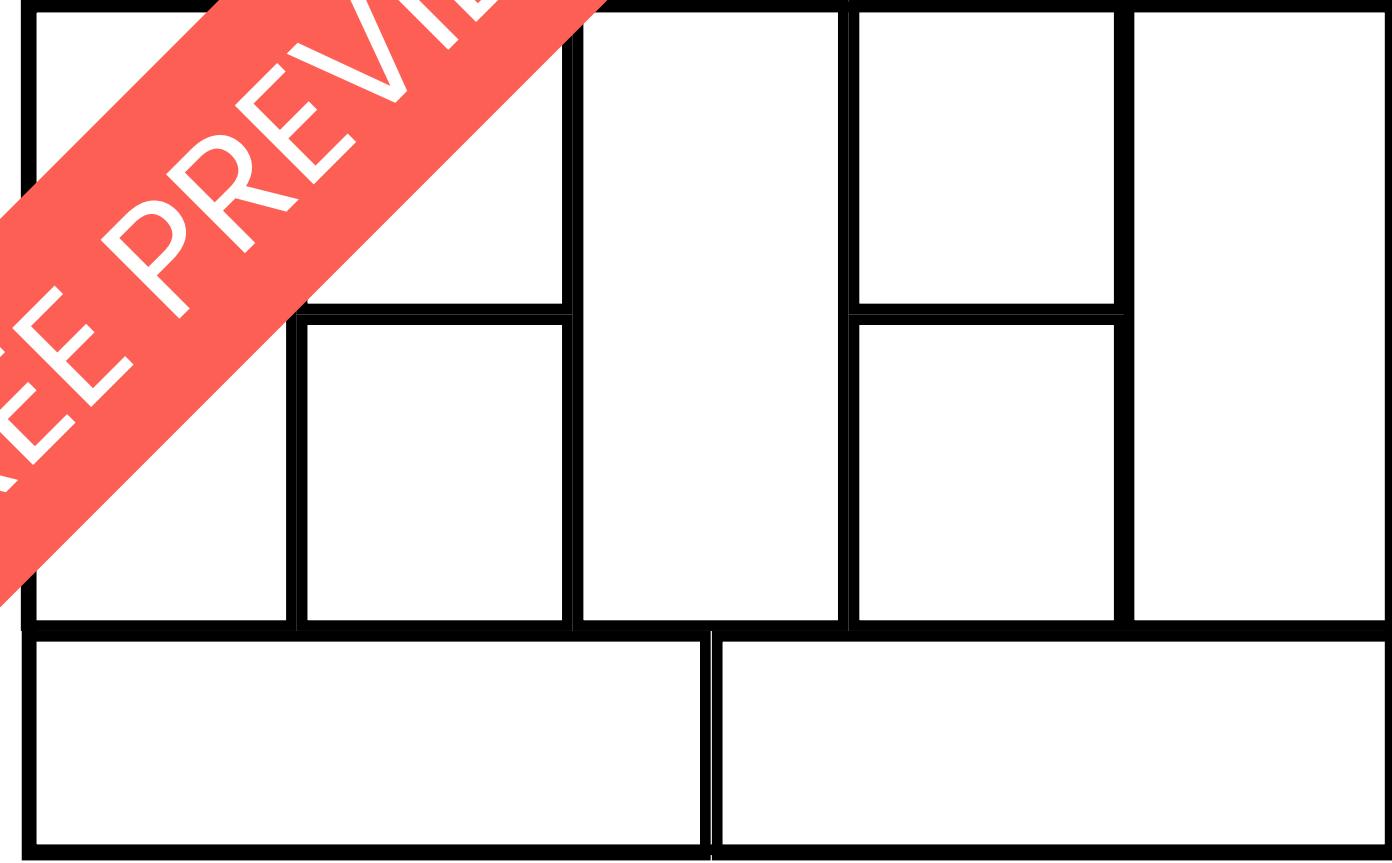
7.05



The prompt output is in a list format, but with a little effort it can immediately be used to create a Value Proposition Canvas. Below, the results are organized using the Value Proposition Canvas.



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# Business Model Canvas

The Business Model Canvas is a visual framework for describing and analyzing a business model, which consists of 9 key elements, including the value proposition, customer segments, revenue streams, and cost structure.

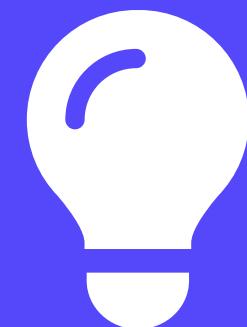
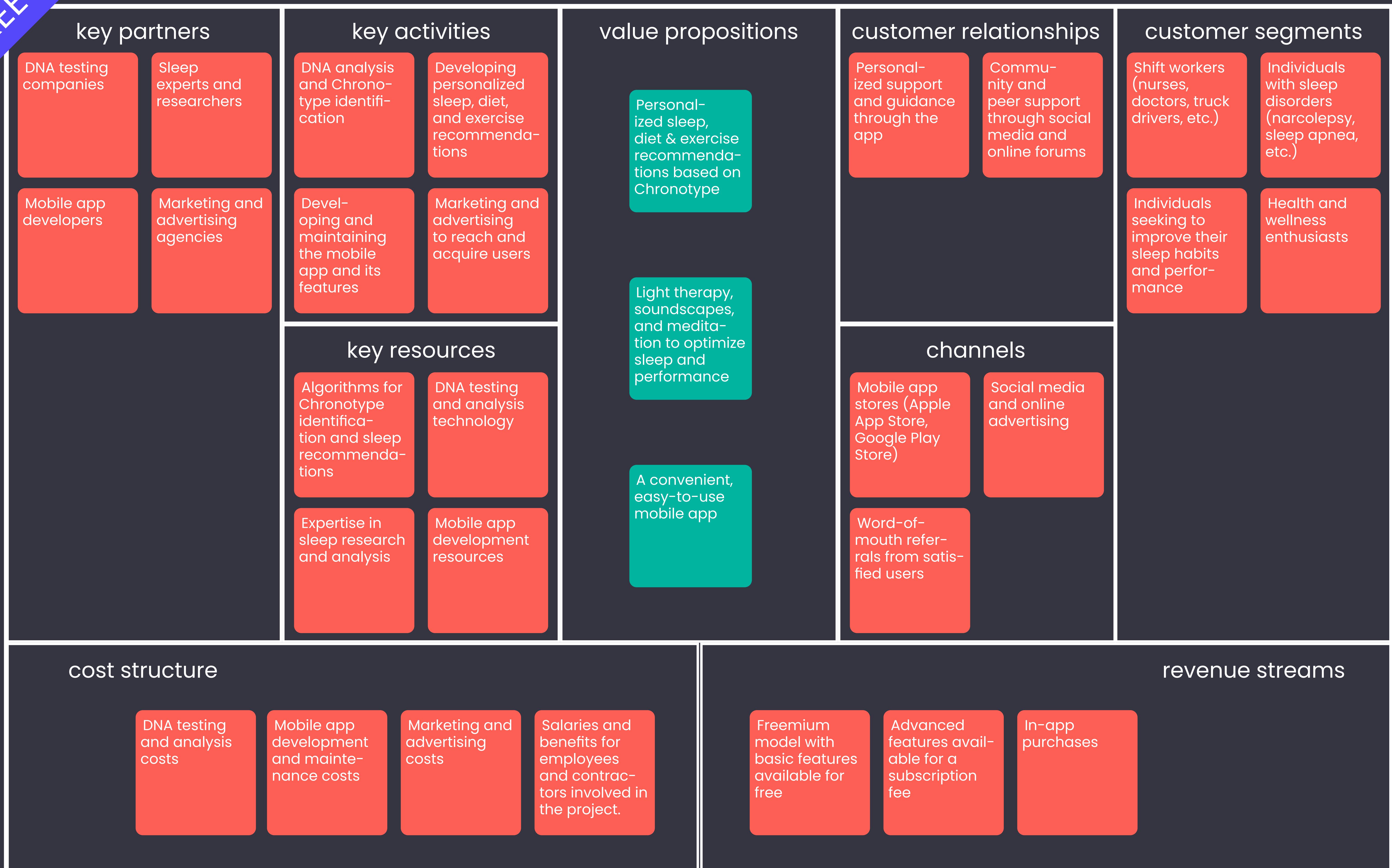
It's straightforward to use ChatGPT to generate ideas for each of these elements, which can then be used to fill in the various sections of the BMC.

For example, ChatGPT can generate ideas for potential revenue streams, cost structure, and key partnerships, which can be incorporated into the relevant sections of the BMC.

The tool can also assist in analyzing the relationships between the various elements of the business model and identifying potential areas for improvement or innovation.

By using ChatGPT in combination with other business analysis tools, such as SWOT analysis or PESTEL analysis, the business model can be refined and optimized to better meet

the needs of the target customers and achieve the desired business objectives.



Here, I visualized ChatGPT's output in a Business Model Canvas format. Although it might not be the best Business Model right off the bat, this does demonstrate the potential for ChatGPT to generate new business models based on a chat context, as demonstrated here by referencing the ChronoGuruX idea developed in the case study in chapter 4.

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 ChatGPT has already helped lots of teams in different industries, like healthcare, finance, and marketing, to come up with really cool and innovative ideas. Plus, with a full case study transcript included in the ebook, you'll get to see for yourself how ChatGPT can be used in an innovation project.

 Hello! I'm interested in learning basic and advanced techniques for using ChatGPT in innovation.

 Absolutely! This ebook is like a treasure trove of practical strategies, tips, and techniques for using ChatGPT to come up with fresh ideas and solutions faster and more efficiently than ever before. The ebook is designed to be super easy to follow and contains all the prompts and tons of examples.

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 I don't know if I'm ready to invest in something that might put my job at risk.

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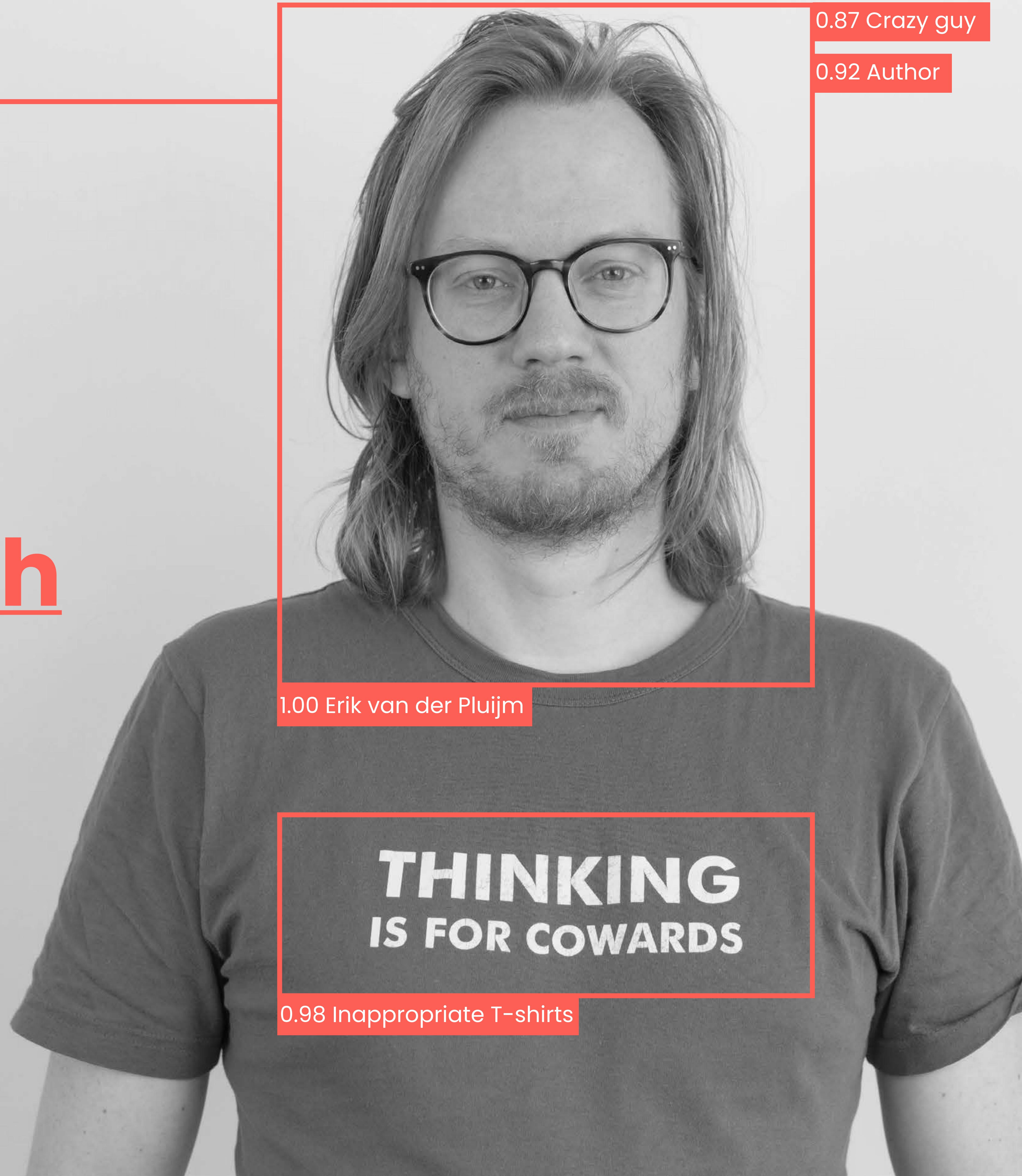
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About the Author:

Hi, I am Erik:  
a designer,  
developer,  
AI engineer,  
startup coach  
& innovator.





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